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Response to Intervention in the Kindergarten Classroom

Megan Elizabeth Bauer
Hamline University, mbauer07@hamline.edu

RESPONSE TO INTERVENTION

IN THE KINDERGARTEN CLASSROOM

By

Megan E. Bauer

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Primary Advisor: Susan Manikowski
Secondary Advisor: Jane Webb
Peer Reviewer: Amber Steinmeyer

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CHAPTER ONE

Introduction

Overview

The National Reading Panel suggests, "with the absence of evidence-based instruction, 30-60% of students may fall behind in reading, and once behind, are unlikely to ever catch up" (Lyon, 1998; Juel, 1988; as cited in Bursuck & Blanks, 2010, p. 422). The reality of this statement is quite shocking. If educators do not respond to students' needs early, students may struggle their entire academic career and on into their adult lives. I see this as a call to action. We must ensure that we have effective procedures in place in our schools so that we are able to identify these at-risk students and respond with the appropriate intervention/s.

The Response to Intervention (RTI) model can be very effective in identifying areas where students need additional support and providing those targeted services. It is clear; however, that this type of action demonstrates a greater success rate when students needing additional support are distinguished at an earlier age. Through this research I hope to target the following question: How can kindergarten teachers support the Response to Intervention process? Within this chapter, I will review my educational background, including the teacher who inspired me, and a particular student I taught my

first year as an educator that challenged me to improve my methods. I will continue by sharing about my experiences in learning supports meetings, and additionally the factors that led me to teach kindergarten. All of these events have helped to shape my beliefs and inquiries regarding the use of RTI and early intervention.

My First Grade Teacher

There is a particular card that I have kept in a memory box in my closet for over twenty years. It has flowers on the front, and inside precise letters read, "You have a bright future ahead of you." The card was written by my first grade teacher. I knew, even at the young age of six, that she was one of the most remarkable teachers I would ever have.

My first grade year marked the first time I had ever attended public school. I was a nervous child by nature, and this new venture was the cause of increased anxiety. Had it not been for the very special teacher that walked into my life, I have a feeling that I would have dreaded school for my entire academic career. Instead, the opposite occurred. I absolutely loved school.

I remember entering the large brick building full of children big and small, a tear rolling down my cheek as I walked down the hall alone on the first day of school. As I turned a corner, I saw my teacher waving to me with a great big smile. Seeing her, I immediately felt more at ease. She had a way of making students feel comfortable and safe. She respected who we were as individuals. This wasn't the last day that I came to school crying, but my first grade teacher was patient and gave me the time and the tools I needed to adjust. I didn't know then what a valuable skill my teacher had in

understanding her students' needs and responding to them to help us grow both academically and socially. She had a way of making every child feel important and loved, and she made sure that we knew that she believed in us. My first grade teacher brought so much joy and excitement to the classroom. Her care and thoughtfulness to my needs so early on in my education proved valuable throughout my schooling. I grew to love learning thanks to my first grade teacher. She is the reason that I decided to join the teaching profession.

Sadly, when I was in college this irreplaceable teacher's life was unexpectedly taken in a car accident. It was clear by the outpouring of condolences just how many lives my first grade teacher had touched. There is no doubt that she left behind huge shoes to fill, yet when she passed, I decided that I would honor her memory by being the kind of teacher she was: the kind that believed in her students, advocated for their needs, and taught them the joy of learning.

Being a teacher comes with large responsibilities. I have the daily opportunity to impact students' lives and I want to equip myself with the right tools to support my students' many needs. This includes the use of Response to Intervention. The better equipped I am to utilize this model in my kindergarten classroom, the more adept I will be in providing students with the appropriate measures to make their academic careers positive and successful.

My First Official Teaching Job

Several years later, I found myself in my very own classroom, preparing for my first day of school as a teacher. I had spent hours that summer decorating, organizing, and

planning for the second and third grade students that would soon fill the room. I was prepared for anything, or so I thought. As I stood at the entrance on the first day of school, excitedly greeting my new students, in walked the child who I would come to realize that I was not prepared for.

This boy was a second grade student, but the size of a fifth grader. He had a challenging home life and lived with his grandmother and his father, who had special needs. He had difficulty speaking and threw tantrums when he was angry. This young boy did not have properly developed motor skills and struggled with writing, cutting, and coloring. He also had trouble with coordination and couldn't run or skip, which made it hard for him to keep up with his peers at recess. At lunch he would put piles of ketchup on his tray and eat it with his hands and when he would return to class he would be covered in food. This child was falling further and further behind in academics. What surprised me the most, was that this boy had attended the school for two years prior to my class, yet speech was the only support service that he was receiving when he arrived in second grade.

I remember going home one evening after a day of teaching and collapsing on the couch to cry. How was I going to help him? As a first year teacher, I was doing my best to keep my head above water, and this boy needed so much more. I didn't know nearly enough about the Response to Intervention process, and felt helpless as where to begin. I just kept wondering how he had slipped by without any support for two years already. I did know that he deserved more, and the longer I waited, the harder it would be for him to succeed.

I was fortunate enough to have several supportive, more seasoned colleagues, that helped me to advocate for this boy, which allowed me to fast track the RTI process and get him more support quickly. This experience, however, left me feeling that our school should be doing more screening of students earlier in their academic careers in order to identify at-risk children before the gap, social or academic, becomes inherently larger. I can't help but wonder, if this child in my second grade class had been identified in kindergarten, would he have experienced more success throughout school in first and second grade? I believe he would have.

Learning Supports Meetings

I currently teach at the same school where I met the boy described above. Since my year with this student, our Response to Intervention program has become more structured and we now utilize learning supports meetings to discuss and track at-risk children. Our school is divided into four colonies: Colony I (kindergarten and first grade), Colony II (second and third grade), Colony III (fourth and fifth grade), and Colony IV (sixth grade). Once a month each set of colony teachers meets with the learning supports team for 50 minutes. The learning supports team consists of our principal, the student advocate, the school psychologist, the instructional coach, the math and reading intervention teachers, and one special education teacher. In theory, these meetings are a positive addition to the program, yet it seems that we are lacking purpose and structure. I sit at these meetings and watch as my colleagues become more and more frustrated.

A typical meeting begins with a review of all of the students receiving math and reading intervention. These are students involved in Teir 2 intervention based on

screening assessments from the fall. Teachers are presented with a graph of progress monitoring data points for every child and we discuss each. Following this, the floor is opened to discuss teacher concerns; however, often by the time we get to the open forum there is a very limited amount of time left, thus discussion feels rushed and lacks thoroughness. When teachers do share student concerns, our school psychologist often tells us that we do not have enough data points collected to move forward or to make any qualifications. This leaves many teachers discouraged because they are left feeling like they are waiting for their students to fail and losing valuable time to intervene.

It is evident that the current process is not providing the desired outcome, and also makes me question if our general education teachers are well enough informed in regards to the RTI model and data collection. I want to know what I can do in my kindergarten classroom to support the RTI process so that my students are able to get the intervention they need in a timely manner. I believe it is valuable to start this process in kindergarten, because students who receive early intervention have the opportunity to catch up more quickly because the knowledge gap has not yet become vast. I also believe it is necessary to start this process in kindergarten so that the data collected on students is plentiful and can be passed on to support other teachers' data collection as students progress through grade levels.

Teaching Kindergarten

When my school began our new peer evaluation process, I jumped at the opportunity to observe the kindergarteners in action. Watching, I only fell more in love with these young children and their excitement for learning. For them, the world is still

new and full of discovery, and I could feel the energy of their learning every time I visited. When I realized there would be an opening for a kindergarten teacher for the upcoming school year, I took the leap and was offered the position.

While I am thrilled with this new adventure, I also realize that teaching kindergarten brings new responsibilities. Kindergarten can have a great impact on students' overall feelings about school, as for many; this is their first year of a structured academic setting. Kindergarten teachers have the pleasure and the duty of introducing routines, socials skills, and the joys of learning. In order for students to love school, they need to feel successful. This can often directly relate to RTI. Some students will need interventions in place to become proficient in academic or behavioral areas. The earlier I can provide my students with the support that they need, the more likely they will feel confident and eager to learn. Collecting data in kindergarten for the RTI process can also benefit students in future grade levels.

As I embark on this new journey as a kindergarten teacher, I want to ensure that I am well equipped to support the RTI process in my classroom, which in turn will positively impact my students. My goal is that with these tools, I will be able to instill a love of learning in my students that will last throughout their lives.

Research Question

Identifying and responding to student needs as early as kindergarten has a positive impact on student success and self-efficacy. For my capstone I would like to learn: How can kindergarten teachers support the Response to Intervention process? The purpose of my research is to identify ways that I can recognize student needs and take the

appropriate action steps to provide support for social and academic growth. I would like to expand my knowledge base of the RTI approach so that I can work effectively with parents and colleagues to reinforce the process and provide the best possible learning environment.

Chapter Summary

As an educator, I have the opportunity to influence my students daily. To be an effective kindergarten teacher, I need to be able to identify students' needs and utilize the RTI model to support student growth. Throughout my academic journey, both as a student and teacher, I have learned the importance of meeting students' individual needs to make them feel successful and confident in their educational abilities. This chapter discussed how my personal experiences as a student, first year teacher, transitioning kindergarten teacher, and my previous RTI practices, have motivated my research.

Chapter two will contain a review of literature in order to provide background and evidence for the action research study. The chapter will discuss the Response to Intervention model, data collection and assessments, child development in kindergarten, and previously performed and published RTI studies. By providing information as to how students are identified within the RTI process and in what ways they can be appropriately served, this information will aid in responding to the question: How can kindergarten teachers support the Response to Intervention process?

CHAPTER TWO

Literature Review

Overview

In this chapter I will review the literature pertaining to the guiding question: How can kindergarten teachers support the Response to Intervention process? The purpose is to better understand the process by which kindergarten students qualify for intervention by providing background and studies to prove the success and significance of the topic. This literature review will discuss the history and structure of the Response to Intervention (RTI) model, data collection and assessment within the RTI process, including how to identify and respond to underperforming students, and the appropriate developmental behaviors and instruction for kindergarten students. This chapter will also review several studies on kindergarten interventions that have been completed by other researchers to evaluate components that have been successful. Early intervention has been shown to improve students' academic achievement, and it is important to know how to appropriately qualify and support students to provide an optimal learning environment.

Response to Intervention

Response to Intervention (RTI) is "a means of providing early intervention to all children at risk of school failure" (Fuchs & Fuchs, 2006, p. 93). Identifying at-risk

students as early as kindergarten allows educators to provide timely, targeted intervention while it is still possible for students to catch up to their peers. When responded to with the proper procedures, this early identification can have a meaningful impact on student achievement and self-efficacy. This section will discuss the history of identifying learning disabilities among students and the benefits of utilizing the RTI approach for identifying student needs. It will also outline the RTI model, including the levels of intervention, guidelines, and procedures.

RTI v. IQ-discrepancy testing. The Response to Intervention model is still relatively new in the education field. Passed in 2004, the Individuals with Disabilities Education Improvement Act (IDEA, 2004) promoted the adoption of the RTI model, rather than the previously used method of IQ-discrepancy testing (Fuchs & Fuchs, 2006, p. 93). The method of IQ testing involved finding a discrepancy between a student's cognitive ability and achievement in order to identify learning disabilities (O'Connor, Bocian, Sanchez, & Beach, 2014, p. 307). Several components of using IQ-achievement discrepancy caused dissatisfaction and warranted a need for change. One of the main criticisms of this model was that it did not prove useful in enhancing services for students, and was overlooking many younger students, specifically in the areas of kindergarten and first grade. This was keeping students from receiving early intervention. Students often could not be identified until second grade or later, which prevented them from receiving valuable opportunities (Braddley, Danielson, & Doolittle, 2007, as cited in Richards, Pavri, Golez, Canges, & Murphy, 2007, p. 56; O'Connor et al., 2014, p. 307). Richards et al. (2007) called this the "wait to fail" model (p. 56). MacMillan & Sisperstein (2002) describe that it can be

difficult to identify learning disabilities in young children because they are not yet far enough behind, making it difficult to detect a discrepancy in intelligence and achievement (as cited in Richards et al., 2007, p. 56). This type of model led students to fall further behind until the gap was large enough to qualify them for Specific Learning Disabilities (SLD) services. The "wait to fail" method also had the potential to qualify students for special education who may not have needed these services had they received earlier intervention. Not only was this method doing a disservice to students, Braddley et al. (2007) it was not beneficial for planning meaningful instruction (as cited in Richards et al., 2007, p. 56). Given these factors and the lack of consistent results utilizing the IQ-discrepancy tests, the IDEA, 2004 called for change. It allowed school districts to use as much as 15% of their special education money to fund early intervention programs (Fuchs & Fuchs, 2006, p. 93). The goal was to have a positive impact on student identification and improve the services provided to at-risk students.

RTI structure and procedures. The IDEA, 2004 enabled states to use models of Response to Intervention as a way of providing early intervention to students. It also required that students must receive effective instruction and intensive intervention before being identified as having a learning disability (Al Otaiba et al., 2014, p. 11). The purpose of Response to Intervention is to make "efficient use of school resources while maximizing students' opportunities for success" (Fuchs, Fuchs, & Compton, 2012, p. 263). While some components of RTI may differ between school districts, the RTI model uses levels or tiers of prevention to maintain consistency. Often the RTI model is made up of three main tiers, but may include more or less. Fuchs & Fuchs (2006) describe this

model becoming more intense at each tier by providing more teacher time and explicit instruction, increasing the frequency and amount of time spent on instruction, and learning in smaller groups (p. 94). The following will describe the structure and procedures of Response to Intervention in further detail.

Tier 1, also called the primary level of prevention, consists of instruction received by all students within the general education setting. In this level, students are screened for Tier 2 identification two to three times a year. According to Richards et al. (2007), this primary level of prevention meets the needs of about 70-80% of students (p. 57).

Students who qualify through screening are placed in Tier 2, or the secondary level of prevention. In Tier 2, instruction includes targeted, systematic intervention in small groups of four to five students (Richards et al., 2007, p. 57). These groups meet three to five times per week for twenty to forty minutes, depending on how the school structures its intervention blocks (Bursuck & Blanks, 2010, p. 427). Tier 2 instruction is typically provided by a licensed teacher, hired specifically for math or reading intervention. Students are placed in groups based on their need/s so that intervention teachers can focus on the area/s where students require additional support. Tier 2 also includes more regular progress monitoring, which assists educators in deciding which level of intervention will best support student growth. Progress monitoring is used to assess student performance and respond to student needs through targeted and effective instruction.

Tier 3 provides the most intensive intervention and serves about 2-5% of students (Richards, 2007, p. 57). This is also known as the tertiary level of prevention, and often

takes the form of special education services. Interventions in Tier 3 are performed in groups of three or less students. Certified special education teachers typically provide these interventions. Due to the intense nature of the intervention in this level, instruction will often take the place of core instruction that would be provided in the general education classroom.

One of the benefits of the RTI model is the flexibility it offers for student support. The structure allows for students to fluidly enter and exit levels of prevention when monitoring shows a need for increased or decreased services. This provides students with more appropriate, individualized instruction, which creates a higher level of student success. In this model, "data about a student's responsiveness to intervention becomes the driving force" and provides meaningful information to guide instruction (Grimes, p. 4, as cited in Fuchs & Fuchs, 2006, p. 95; VanDerHeyden, 2014, p. 236). This type of teaching creates a more valuable and focused learning environment, where teachers and intervention specialists can tailor their lessons to target student needs.

RTI and special education. In addition to the benefits of data-driven instruction, schools have seen impacts regarding special education. VanDerHeyden et al. (2007) discovered that although more students received services through RTI, fewer students qualified for services through special education (as cited in O'Connor et al., 2012, p. 310). Richards et al. (2007) found that providing the early interventions supported by the RTI model delivered the extra assistance that was necessary for many at-risk students, and therefore, those students did not need special education services (p. 58). If schools can begin identifying underperforming students in kindergarten, these children can be

provided with the necessary interventions immediately, potentially removing the need for special education. The longer students are allowed to fall behind, the more content they are missing, and the more challenging it is for them to catch up to their peers.

Collaboration. In order to effectively utilize the RTI approach, educators must work together. The general education teacher should know who to look to for guidance and support. Richards et al. (2007) recommend collaborating with special educators, school psychologists, speech therapists, reading specialists, and administrators to develop responsive programs (p. 59). Teachers must be given the resources and the time to collaborate to make the RTI model effective and successful.

Understanding the structure of Response to Intervention is necessary when building an effective model within a school or district. The use of evidence based instruction/intervention and monitoring student progress through ongoing assessment are critical components of RTI (Richards et al., 2007, p. 56). Knowledge of the approach is important to support the model, which in turn aids in academic success.

Assessment & Data Collection

Proper assessment and data collection are crucial components of effective utilization of Response to Intervention. Crawford (2014) sates that "a well-articulated assessment system is critical in providing teachers with reliable data that are easily interpreted and used to make instructional decisions" (p. 230). This section will examine effective measures for evaluating student performance, as well as discuss how to use the data collected to monitor student response and progress.

Early intervention. According to Menzies and Lane (2011), early detection and

intervention is likely to result in more positive academic and social success later in children's schooling (p. 181). The early years of education, including preschool, kindergarten, and first grade, are critical for a students' successful development. They lay the academic foundation for which later skills are built upon, and also provide students time to explore how to negotiate the school environment (Menzies & Lane, 2011, p. 182). This is why it is important that schools ensure they have effective prevention models as early as kindergarten. Prevention models, such as Response to Intervention, use systematic screening tools and other academic data to identify students who need additional supports (Lane, Kalberg, & Menzies, 2009, as cited in Menzies & Lane, 2011, p. 182). Identifying at-risk students provides the opportunity for interventions that will meet students academic, behavioral, and social needs. According to Yssldyke, Burns, Scholin, & Parker (2010), the passing of the previously mentioned IDEA resulted in heightened interest in assessment data collection and data-driven decisions for instruction (p. 54). This supported the growth of RTI and the desire to design an on-going process that valued student performance to guide instruction and intervention (Abbott & Wills, 2012, p. 37).

Role of assessment. Assessment is an important component of the RTI model, and plays a critical role in identifying at-risk students and tracking student progress. Crawford (2014) states that, "without a valid assessment system, the model cannot sustain itself". Crawford also believes that an assessment model should incorporate three components. These include a system for assessment, utilization of reliable performance measures, and graphing of student progress (p. 230).

According to Yssldyke et al. (2010), a commonly used RTI model for assessing students includes this three-part process: 1) Screen all students in the fall, winter, and spring. 2) Identify low achievers and monitor their progress regularly. 3) Monitor students receiving intensive interventions weekly (Crawford, 2014, p. 231). This three-part process accounts for the three levels or tiers that make up the RTI model. The process determines the tier of intervention for which student qualify. This generally creates what Abbott & Wills (2012) call the "Response to Intervention Triangle" (p. 38). This triangle model shows that after assessment, approximately 80% of students should be in the primary level of prevention, meeting benchmark requirements and receiving general classroom services; 15% of students should be at the secondary level, receiving targeted intervention; and 5% of students will fall into the tertiary level, requiring intensive intervention (p. 38).

Assessments and data collection differ at each level of intervention. The first level of prevention is primary prevention, which refers to general classroom instruction. In primary prevention, students experience universal screening. Screening performed in primary prevention identifies students that may not be responding to the general classroom instruction (Fuchs, Fuchs, & Compton, 2012, p. 265). According to Crawford (2014), screening may take the form of district quarterly assessments, benchmark tests, or curriculum-based measurements (CBMs) (p. 231). From the results of the screening assessment, low achieving students are identified and evaluated for secondary, or Tier 2 interventions. In order to identify these students, teachers and school leaders should have already defined what constitutes low achieving on the given screening assessment

(Crawford, 2014, p. 231). The defined score, sometimes known as the cutoff score, should be able to predict students' future success in a specified academic area, and be used to define which students need intervention (Abbott, 2012, p. 40). Often schools will utilize national norms published by assessment companies to create the cut-off score in screening. Students identified as underperforming using the district or national norms are provided with more intensive instruction. Many researchers suggest a two-stage screening process to qualify students for Tier 2. The intent of this procedure is to prevent false positives, false negatives, and the "wait to fail" phenomenon. (Compton et al., 2010; Compton et al., 2012; D. Fuchs, Fuchs, & Compton, 2012; L. S. Fuchs & Vaughn, 2012, as cited in Al Otaiba et al., 2014, p. 12). Screening preferences may vary amongst districts based on differing assessment philosophies and resources.

Students identified as at-risk during primary prevention-screening move to the secondary level and begin receiving Tier 2 interventions. Tier 2 interventions provide approximately 20 minutes of additional instruction per day for up to 20 weeks (Braddley et al., 2007; Vaughn et al., 2007, as cited in Richards et al, 2007, p. 57). This small group instruction targets a specific academic area and utilizes progress monitoring to collect data at least once biweekly (Ysseldyke et al., 2010, p. 56). Richards et al. (2007) describes that the data collected through progress monitoring is used to make instructional decisions based on students needs. The ongoing progress monitoring is used to determine whether students are responding to the intervention/s (p. 57). Based on this data collection, a student can be exited from Tier 2 and placed back in Tier 1, or moved to Tier 3 for more intensive interventions. In Tier 2 the use of progress monitoring with

feedback enhances student success and the likelihood of replacement in Tier 1.

Students not responding to interventions provided in Tier 2 are moved into the tertiary level of intervention, or Tier 3. Tier 3 interventions often include individualized instruction in small groups of one to three students for 45-60 minutes daily (Vaughn et al., 2007, as cited in Richards et al., 2007, p. 57). In Tier 3, assessments must be given frequently and data collected should be highly specific to target student needs and modify instruction. At this level of intervention, data is collected through assessment at least once per week. Students in Tier 3 may or may not qualify for special education services. In addition, studies have shown that when RTI is implemented effectively with proper progress monitoring, there is a decrease in the number of students who are referred and qualify for special education (Fuchs, Mock, Morgan, & Young, 2003; O'Conner, 2007, as cited in Richards et al., 2007, p. 58). Ysseldyke et al. (2010) believes that "as a student's unique needs increase, the levels of precision, frequency, and sensitivity of assessment correspondingly increase" (p. 58). The RTI framework allows the flexibility to assess students in a way that meets their individual learning needs and provides teachers with the data to support growth and appropriate intervention. This type of data collection should begin in kindergarten to ensure that students' needs are being met throughout their academic career, with the highest rate of success possible.

In regards to appropriate assessment within the RTI model, there is debate as to whether it is appropriate to fast track students to higher tiers when data collection shows extreme discrepancies in student performance and the agreed upon norms. Researchers have argued that immediate placement in Tier 3 is appropriate for students showing

significantly low scores on pre-intervention assessments (Al Otaiba, 2014 p. 12). While there is concern for fast-tracking students when there is the possibility of false positives, some researchers believe it will be difficult for students to catch up to their peers if not provided with more intensive and immediate instruction (Al Otaiba & Fuchs, 2006; Denton et al., 2006; Wanzek & Vaughn, 2008, as cited in Al Otaiba, 2014 p. 12). While opinions and protocols on fast tracking students through levels of prevention vary, there is no argument that the relevant data collection utilized throughout the levels of the RTI process allows variance for student needs, flexibility in intervention received, and supports instruction. The RTI model demonstrates that "to generate the best student outcomes, data should drive implementation and intervention (Kovaleski & Pedersen, 2008; Stringfield & Wayman, 2006, as cited in Abbott, 2012, p. 38).

In summary, the use of assessment data to identify student levels of performance is a crucial component of the RTI model. The collection of reliable data is necessary to improve student learning and success.

Child Development in Kindergarten

The kindergarten debate.

According to Helen D'Ordine (2002), "The kindergarten classroom now emphasizes academics to the exclusion of developmentally appropriate activities" (p. 4). Some think this push for academics has placed unrealistic expectations on kindergartens, causing students who are performing at a developmentally appropriate level for their age, to be considered behind. Researching developmentally appropriate behavior, both socially and academically is necessary in order to properly evaluate and monitor students. To aptly use the Response to Intervention model, educators must know

how to properly identify students who are at-risk. This section will provide an overview of developmental expectations for kindergarten students, while discussing the challenges involved in the current emphasis on academics.

The debate as to whether kindergarten is becoming too academic at the expense of developmentally appropriate play is not a new one. In *Kindergarten's Growing Pains* (2015), Christina A. Samuels refers to kindergarten traditionally being a place for socialization and adjustment to school routines; however, now teachers are trying to balance this with the increasing academic demands (p. 18). Samuels believes that teachers and principals feel the pressure of preparing children for more rigorous academic work. This fear of falling behind is leading to higher expectations in literacy and math, and less time for free choice, art, music, and sometimes even science and social studies (p. 19-20). It is important to point out that Samuels does not believe that increasing the focus on academics is inherently problematic. The higher academic standards can be positive, but only if met in a manner that is developmentally appropriate for students. Kimbrelle Lewis, a teacher in Samuels' study, stated, "We still want kindergarten to be fun, but it's a fun place of learning. There is play involved in their learning, but it's productive play" (p. 20).

While expecting more out of kindergarten students can lead to positive outcomes, Bournfreund (2012) worries that professionals have not been properly prepared to teach such rigorous academics in a developmentally appropriate manner (Kohler, Christensen, & Kilgo, 2012, p. 407). Parker and Neuharth-Pritchett (2006) discuss the repercussions of utilizing teacher-centered practices versus child-centered practices. Teacher-centered

practices, also called didactic practices rely more exclusively on passive forms of instruction and drill-and-practice approaches (Kohler, et al., 2012, p. 65). There is concern that this type of teaching is becoming more common in kindergarten due to kindergarten's increasing academic nature and the pressure to prepare students for upcoming grades and high-stakes testing. Research has shown that didactic instruction often has a negative impact on children's self-confidence, engagement, and creativity. It can also result in an increase in student anxiety, and negative feelings toward school (Kohler et al., 2012, p. 67). Kindergarten is an important year of learning, both socially and emotionally, and placing these expectations on children can have repercussions. Not only did didactic practices show increases in negative feelings, there was also "no identified academic advantages for children from highly academic environments" such as these (Hirsh-Pasek et al., 1990, as cited in Kohler et al., 2012, p. 67-8).

In comparison, Kohler et al. (2012) assert that child-centered practices that honor developmentally appropriate practices increased student motivation in that students had higher expectations for their success in school, demonstrated more pride in their successes, and were less anxious about school (p. 67). According to the National Association for the Education of Young Children, developmentally appropriate practices "emphasize the developmental level and learning style of the whole child in terms of physical, social, emotional, and cognitive needs" (Kohler et al., 2012, p. 66). In addition, this child-centered practice urges children to form an understanding of their environment through physical and social activities. Developmentally appropriate instruction is driven by student choice and interest and provides many opportunities for peer interaction,

exploration, and hands-on activities. Kindergarten is a time of great growth, and the type of teaching children are exposed to can have a lasting impact, positive or negative. Knowing how each type of teaching impacts students is important when identifying children for intervention.

Involvement of NCLB. While theories regarding developmentally appropriate practices in kindergarten have long been a topic of discussion, the heightened academic pressure noticeably began around 2002 with the passage of the Federal No Child Left Behind Act (NCLB). This began to change the kindergarten experience, and additionally changed the expectations for incoming kindergartens. In the article *Is Kindergarten the New First Grade? The Changing Nature of Kindergarten in the Age of Accountability* (2014), Bassok notes that in 1998, less than 33% of kindergarten teachers believed that children should learn to read in kindergarten, and by 2006 65% of teachers believed kindergarteners should learn to read in kindergarten (p. 2). This overwhelming growth in percentage has likely continued, as now it is common for kindergarteners to be expected to read by the end of the school year. This would account for growth in the time spent on literacy. The drastic increase in expectations should be considered when deciding whether a kindergarten student is underperforming and in need of intervention.

During the passage of NCLB, half-day versus full-day kindergarten was a topic of debate. Some, like Helen M. D'Ordine (2002), felt that full day kindergarten had the potential to be stressful and developmentally inappropriate to some students, not giving them the opportunity to "learn to learn" (p. 4). Others like Marilyn I. Wilson (2002), felt that the extra time spent in full day kindergarten provided more opportunities for

meaningful learning, saying that, "academics and play reinforce each other" (p. 4). Chmelynski (1998) also believes that full-day kindergarten can be very developmentally appropriate when students are provided with proper opportunities such hands-on projects, appropriate pre-literacy experiences, and emphasis on social skills and conflict resolution (p. 34). In addition, full day kindergarten benefits the RTI model. In full-day programs, teachers are more likely to detect learning problems that would be much harder to identify in half-day kindergarten programs (p. 33).

Finding balance. The research regarding the academic focus in kindergarten appears to have a theme of balance. Higher emphasis on academics is successful when taught in a developmentally appropriate way by incorporating play, not eliminating it. In *Is Kindergarten the New First Grade* (2014), Bassok and Rorem consider both sides of the debate regarding appropriate academic expectations for kindergarteners. The article states that standards appropriately recognize that social, communication, and self-regulation skills are equally as important as academic skills in the early years of schooling (Bassok & Rorem, 2014, p. 3). It notes that some kindergarten children are not yet ready for structured learning experiences and academic content (p. 3). While educators must be aware of children's developmental readiness, Bassok and Rorem also review the opposing argument maintaining the stance that academic exposure in kindergarten can be beneficial for improving long term student learning outcomes (p. 3-4). Due to the fact that more children are attending preschool, many students are now entering kindergarten with more previous exposure to academic skills, which may be part of the cause for the changing teaching practices (p. 5).

Kindergarten in Minnesota. According to the Office of Governor Mark Dayton, in 2013, the state of Minnesota invested $134 million dollars into all-day, every day kindergarten to provide equal education opportunities for all children of school age. Prior to this investment, 54% of children in Minnesota were attending all day kindergarten. Currently, there are 99.6% of children attending all-day, every day kindergarten in Minnesota. Many believe that providing this opportunity early on will hold many academic benefits and begin to close the achievement gap ("Over 57,400 Children", 2015).

It is clear that there is still some question regarding the proper amount of academic focus and push in the kindergarten setting. This being said, it is apparent that regardless of belief on academic rigor, it is of utmost importance that teachers use developmentally appropriate practices in their classrooms. A teacher that knows what is developmentally appropriate for a kindergarten student can also identify areas where intervention may be necessary. So, what is developmentally appropriate behavior for a kindergartener?

Theory of cognitive development in kindergarten. According to Jean Piaget's theory of cognitive development, kindergarten aged children are egocentric and see events from their own point of view. This means they may not realize that others have a differing point of view. Children of this age are developing the concept of numbers, and are increasingly able to use language and words to represent things. They have a greater understanding of rules and are more easily able to think through problems. A

kindergartener's thinking can often be concrete and he or she may have a difficult time grasping abstract concepts. (Felton & Peterson, 1976, p. 9)

Child development in kindergarten. *Yardsticks* (1994) is another reliable source in gauging appropriate development for children. According to author Chip Wood, kindergarteners learn best through play and action. They are still improving in gross motor control. Kindergarteners like to help and thrive with rules and routines. These young children often think aloud and need repetitive behavior to maximize learning. Kindergarteners may have difficulty spacing letters, numbers, and words. They should not be expected to stay in the lines when writing, and may reverse letters. Students will often need a pointer to track words when reading. Kindergarteners can work for 10 to 15 minutes, and may become physically restless or fidgety. They may have awkward fine motor skills and their hands may get tired from gripping objects such as pencils. Children of this age may test authority. Kindergarten teachers who are cognoscente of developmentally appropriate practices should provide students with lots of physical activity, time for active exploration, maintain consistent guidelines and schedules, allow students to try out their own way of doing things, and give students lots of encouragement.

"No matter how children are grouped chronologically or by grade, there will also always be a wide spread in normal developmental differences" (Wood, 1994, p. 6). When identifying underperforming students for RTI, it is important to know the spectrum of characteristics of which are developmentally appropriate for kindergarteners. This prevents students' lack of experience in school from being misconstrued as poor learning

potential (O'Connor et al., 2014, p. 308). There are many benefits of early recognition. The sooner students can be identified for intervention, the more likely they are to succeed in their future years of schooling.

Intervention Studies

This section will examine studies that have been performed in kindergarten classrooms using specific interventions to target identified areas. This portion will also discuss processes and outcomes of the studies to provide insight regarding qualities of a reliable intervention. Researching prior studies will contribute valuable information to finding optimal ways to measure student growth and to effectively meet student needs in the RTI process.

Study #1. The first study being reviewed was completed by Vellutino, Scanlon, Zhang, and Schatschneider (2007). Five school districts identified at-risk kindergarteners by providing letter identification assessments in the fall. All students scoring at or below the 30th percentile were considered underperforming and were tested on the following skills to ensure validity: letter identification, sensitivity to rhyme, sensitivity to alliteration, counting by one's, number identification, and rapid naming of objects (p. 443-4). It is important to ensure that a study is as accurate as possible by eliminating false negatives and false positives from initial screening.

Kindergarteners identified as at-risk from the screening were then provided with one of two potential interventions through the end of kindergarten. Half of students were assigned to a project treatment group that received additional intervention in a group of two to three students, two times a week, for thirty minutes. Instruction provided in the

project treatment group was driven by individual student needs. It focused on isolated practice for development of basic literacy skills, and also included authentic reading and writing to promote motivation (p. 449).

The comparison group of students received schools' routine intervention program. These varied by school; yet tended to follow a very formatted curriculum. To evaluate the programs' effectiveness, students were reassessed in December, March, and June of the kindergarten school year. This group of children was again screened in the fall of first grade for potential intervention need.

Vellutino et al.'s study had positive results. Students from this study were followed through third grade, and by the end of third grade, 84% of the students from the identified at-risk group were performing at grade level (p. 471). Results from the study also showed that while the school-based program used by the comparison group showed growth, the project-based intervention was more effective (p. 453).

It is important to recognize several learnings from this study that can be utilized in future action research. First, proactively beginning intervention in kindergarten has positive results. The earlier students are screened for the possibility of being at-risk, the more opportunities educators have to provide intervention, leading to more success in student performance. Second, in order to provide the most valuable intervention, it is necessary to respond to student needs and tailor instruction to fit, rather than provide a pre-planned curriculum. Both of these findings will be important to utilize when answering my focus question: How can kindergarten teachers support the Response to Intervention process?

Study #2. The second study presented, shares the results of research performed by Little et al. (2012) and shares several similarities to the previously described study. The purpose of the project was to evaluate Tier 2 intervention. Kindergarten students from a school district in Florida were screened using DIBELS LNF and CTOPP SM. Using these measures, ninety kindergarten students across the district were identified as at-risk (p. 191-2). Identified students were assigned to one of the two treatment groups. The first group used Scott Foresman Early Reading Intervention (ERI). The ERI program provided an assessment every four weeks to ensure student progress. Adjustments were made to the progression of the program based on student scores, and students were regrouped (p. 13). The comparison group used school-designed interventions (SDI) that were already in place at the participating schools. The instruction provided utilized the district's core curriculum materials and did not provide a systematic way of adjusting groups or instruction (p.194). All interventions met thirty minutes daily for approximately twenty weeks (p. 189).

The result of the study showed a positive impact from both intervention groups, with the majority of students performing above the 30th percentile after receiving intervention. It also showed that students who were given the ERI intervention significantly outperformed those who received the SDI intervention (p. 198).

A review of this study reiterates the importance of early intervention and its lasting effects on student success, especially when instruction responds to student needs. Similar to the first study, this solidifies that in order to implement effective RTI support in the classroom, it should be done early and the interventions should be student driven.

Study #3. The final study being reviewed is a longitudinal study, following students from kindergarten through third grade. Simmons et al. (2008) highlight throughout their study the importance of kindergarten in predicting later reading achievement, making it a crucial instructional period (p. 160). The purpose of the study was to prove that beginning intervention in kindergarten, by targeting specific skills, could produce success in the following years of schooling.

Kindergarten children were screened in the fall on letter-naming fluency. Students scoring below the 30th percentile and in the bottom quartile of performance for phonemic awareness qualified for intervention (p. 1632). Seven elementary schools participated in the study, with 117 kindergarten students being identified as at-risk. Identified students received one of three interventions for 30-45 minutes per day, five days a week, from November through May. These occurred in small groups of three to five students.

The first intervention split each lesson into two parts. The first fifteen minutes were spent on alphabetic strategies such as letter-name identification, letter-sound identification, blending, CVC words, etc. The remaining fifteen minutes were used to review previously taught skills (p. 163). The second intervention also utilized a two-part procedure. The first fifteen minutes were similarly spent on alphabetic skills and strategies, but the second fifteen minutes focused on vocabulary and story structure (p. 163). The final intervention used was a commercial curriculum that emphasized phonological, alphabetic, and orthographic activities (p. 163). The first intervention was shown to be the most effective.

All students were reassessed for risk yearly in the fall through 3rd grade. Those scoring in the 30th percentile or higher were considered out of risk. By the end of first grade, 88% of the students initially identified were considered out of risk, scoring above at or above the 30th percentile on screening assessments. The majority of students maintained this standing through third grade; however, sixteen students moved in and out of risk (p. 169).

This study makes apparent that students in Response to Intervention programs should continue to be monitored for a period of time once considered out of risk to ensure that further intervention is not necessary. While my study will be for a shorter period of time, this demonstrates that student progress should continue to be tracked in order to see accurate results of interventions over time.

Meaning of the studies. These studies show that it is important to recognize that "the primary grades provide a critical window of opportunity in which early intervention differentially accelerates reading growth compared to later intervention for children" (Vellutino et al., 1996; Vellutino, Scanlon, & Tanzman, 1998; as cited in Little et al., 2012, p. 190). The information gathered from these studies will support my action research as I work to provide meaningful, successful interventions.

Chapter Summary

In Chapter Two I reviewed the literature beneficial to the understanding of the Response to Intervention model in the kindergarten classroom. This included the history and structure of the RTI model, data collection and assessment within the RTI process, including how to identify and respond to underperforming students, and the appropriate

developmental behaviors and instruction for kindergarten students. I also reviewed several studies demonstrating ways that interventions have been utilized in kindergarten settings.

The research presented suggests the importance of identifying underperforming students as early as kindergarten to avoid progressive and increasing student failure in later grades. It provides evidence that when intervention and instruction are developmentally appropriate to meet students' needs, children benefit academically, socially, and emotionally.

In Chapter Three I will examine the research methodology that will be used in my study to explore how kindergarten teachers can support the Response to Intervention process and increase student success. I will also provide specific details about the participants and setting of the study, procedures for data collection, and activities that will be included over the course of the research project.

CHAPTER THREE

Methodology

Introduction

In chapter two I shared research findings related to the question: How can kindergarten teachers support the Response to Intervention process? I explored the Response to Intervention model, data collection and assessment procedures, child development at the kindergarten level, and reviewed prior studies. In chapter three I will explain the methodology of this study, which will include the setting of the action research and a description of the participants. This will also clarify the research paradigm that was used to conduct the research, how data was collected, the procedures that were utilized to complete the project, and the ethical measures that were taken to protect the study's participants. The following section will describe the research paradigm selected to conduct this study.

Research Paradigm

The research paradigm used for this study was qualitative. While I utilized some quantitative data by incorporating student assessment scores, I did not develop a hypothesis for examination, nor create a control group for data comparison, both of which are components of quantitative research studies (Mills, 2011, p. 4). In contrast,

qualitative studies allow for more open-ended questions. Qualitative research provides scenarios for exploration and offers opportunities for the data to shape the study by leading the researcher to new questions or by guiding the research procedures (Creswell, 2014, p. 64). This will be evident as I share how I used the data collected to guide my student instruction, which impacted the procedures of the study as I explored how best to support Response to Intervention in my kindergarten classroom.

Setting & Participants

The last section discussed the method I used to conduct my research. This portion of the paper will provide background information regarding the setting and participants involved in the study. The study was conducted in a public elementary school, serving 488 students, kindergarten through sixth grade. The children attending the school generally come from middle class families, with only 10% of the school population receiving free or reduced lunch. The school lacks diversity in ethnicity, with 93% of students being white, 3.5 % Asian/Pacific Islander, 2.5% Hispanic, 0.4% American Indian/Alaskan, and 0.4% black. Due to this, the school has a very small English Language Learner (ELL) population, currently serving only one student with ELL services. 9.4% of the student population has been identified for special education services.

The school has an open concept layout, meaning that most walls are foldable with the ability to be removed, and classrooms are not fully enclosed. Most classrooms have one open side leading into the media center. The study took place within my kindergarten classroom. My class was made up of 18 kindergarten students ranging from

ages five to six years. The group involved was selected at the start of the 2015-2016 school year once the initial assessment was administered and parental permission was granted. Five students were selected to be involved in the action research Response to Intervention (RTI) group. Three of the students were boys and two were girls. Three students were Caucasian, one was Indian, and one was Persian. Four of the students were five years old and one turned six at the beginning of our intervention process.

Data Collection

In the previous section I provided information pertaining to the setting and participants of the study. The purpose was to deliver background knowledge that may provide more clarity in the action research project. Below I will describe the data collection methods that were used during this research.

Data collection technique 1: pre and post assessment . The first form of data collection that I utilized was a pre-assessment that was given to all children entering kindergarten. The data for this assessment was collected at the beginning of August, two to three weeks prior to the start of the school year. This assessment, found in Appendix A, provided a baseline for student performance. The assessment shared information about students' abilities to recognize colors and shapes, to identify one-digit and teen numbers, and to count by ones. In regards to literacy, the assessment evaluated incoming kindergarteners on their knowledge of letter names and sounds, rhyming concepts, and ability to blend sounds and read consonant-vowel-consonant words. In addition, this assessment provided opportunities for observation of student behavior.

With the data collected from this assessment tool, I was able to distinguish students' strengths and areas of need. This helped me identify students who were performing below their peers and needed Tier 2 intervention. After these identified students received eight weeks of interventions, I provided the assessment again as a post-test and compared the scores for growth. The progress made by students guided my decision in providing further Tier 2 instruction or exiting students from the intervention group.

Data collection technique 2: student survey. The second method of data collection that I used was performing a student survey for the students who were identified for the intervention group. According to Purves & Beach (1972) and Walberg & Tsai (1985), studies have shown strong connections between students' achievement and their attitude regarding the topic or subject (as cited in McKenna & Kear, 1990, p. 626). In order to evaluate students' feelings toward school and learning, I surveyed each student individually utilizing a version of the survey found in Appendix B. I also used this survey to learn more about children's home lives, which provided valuable insight such as an understanding of certain child behaviors, or ways that I could support students and families by providing resources or accommodations.

Data collection technique 3: progress monitoring. Once the five students were identified, students sometimes worked as one whole intervention group while at other times were placed in intervention groups based on areas of need. Within these small groups, I identified student goals and provided interventions that supported these goals. This included teacher modeling and guided practice, and incorporated word/picture sorts,

letter creation and play, high frequency word songs, etc. The type of activities were driven by the goal and by information collected on student growth. While I anticipated doing a formal progress monitor check every week based on the assigned goal, due on time constraints, I administered two formal progress monitor checks throughout the eight week period, one being the post test, and the rest were done informally. According to Phyllis Hunter (2005), one way that students learn intrinsic motivation is by tracking their own growth. This can be a highly rewarding experience and allows children to take ownership of their work and progress (p. 2-3). To promote this type of motivation, I had students track their progress on a graph, similar to the one found in Appendix C. The information collected allowed me to evaluate and adjust the next steps of the intervention accordingly. During the course of the intervention, I also gathered student artifacts, when applicable, to demonstrate student growth.

Data collection technique 4: observation. The fourth data collection technique I used throughout my study was classroom observation. During this time I took what John Creswell (2014) calls "field notes" and recorded observations of the study's participants as they partook in class activities and group time (p. 190). This gave me the opportunity to see the students in more organic settings as they worked and interacted. Geoffrey E. Mills (2011) refers to three different types of observers: active participant observer, privileged, active observer, and passive observer (p.75). I utilized the active participant role as I taught and observed students simultaneously, and the privileged, active observer role when I observed students during team teaching experiences and specials. These observations helped me to formatively assess students and adjust instruction.

Data collection technique 5: spelling inventory. Later in the intervention it was appropriate to give students a spelling inventory provided by *Words Their Way* (2004). The words for this assessment and the data recording form are shown in Appendix D. This tool helped to identify the stage of word knowledge at which each child was practicing: emergent, alphabetic, within-word pattern, syllables and affixes, derivational patterns. Most kindergarten children will be at an emergent or alphabetic stage of word knowledge. The spelling inventory helped in providing the appropriate instruction to students by highlighting linguistic features that need to be learned.

Procedure

The last section of my paper described the five forms of data collection that I used to conduct my action research. The subsequent portion of this chapter will review how I utilized the data to support the identified group of students in the beginning stages of Response to Intervention.

The first step of this study was to conduct the kindergarten pre-assessment for all incoming kindergarteners. As mentioned earlier, this baseline assessment was given two to three weeks prior to the 2015-2016 school year. To administer this test, I met individually with each student for what is known as a "Ready, Set, Go" conference. During this time I asked students questions, observed behavior, and recorded data about students' academic knowledge. From the information collected at this conference, I identified five students for my intervention group. These students were occasionally divided into two groups based on areas of need.

Once students were identified, I used the survey found in Appendix B to learn more about the students' self-efficacy, motivation, and home life. All of these factors can have a major impact on behavior and school performance, thus this information helped me decide which interventions were appropriate, and what resources or support were valuable to provide to parents. The survey was done individually with each student so that the questions could be asked verbally.

Using the results of the Ready, Set, Go Conference and the student survey I decided to postpone the spelling inventory until later in the study. When I did administer this assessment in the second month of intervention, it allowed me to gain further insight of students' word knowledge. I delayed utilizing this tool until later in order to be cognoscente of student abilities and tailor my instruction and assessments to match students' developmental levels.

During the next phase of my action research study, I worked with my intervention groups. While I initially planned to meet with each group for fifteen minutes daily, I adjusted this time to five to eight minutes based on developmentally appropriate practices for the students. The sizes of these groups were dependent upon the activity and the goals students were working towards. As mentioned earlier, I set a goal for each student, based on the results of the Ready, Set, Go pre-assessment. The following are examples of goals that may be applicable to certain students based on the data collected. *I can identify all 26 upper case letters of the alphabet. I can name letter sounds for 50% of the letters in the alphabet. I can increase my letter sound knowledge by five letters.* Response to Intervention is a model that relies on data driven instruction, thus the goals varied based

on student need. Once the goals were assigned, I worked with students daily, providing instruction that helped students work towards meeting these goals. I recorded the instruction delivered as I performed the study. These activities included, but were not limited to, picture sorts, letter and word manipulation and creation, and letter hunts.

While providing the interventions, it was important to measure the activities' effectiveness by progress monitoring and charting student growth. I utilized the Ready, Set, Go Assessment to formally progress monitor and chart growth. I recorded this information in student files, and also had students chart their own progress by coloring in a graph. The graph provided a representation of the number of uppercase letters, lowercase letters, and letter sounds that students had mastered.

During this portion of the study, I made sure to discuss these students and interventions in our kindergarten professional learning community (PLC) meetings and with the learning supports team. This provided the opportunity to receive feedback and recommendations for strategies that helped support student growth.

Another key factor that took place during the eight-week time frame was student observation. Throughout the study, I took field notes documenting student behavior, participation, accuracy, and tendencies during lessons, work time, and choice time. This was used to formatively assess student progress.

Following the eight-week period of interventions and progress monitoring, I administered the post-assessment to evaluate student growth from the beginning of the year. Utilizing this data, I was able to analyze the results of the study.

Ethics

To protect the participants of this study, I followed the procedures of the Hamline School of Education Human Subjects Committee. First, I submitted my proposal to the Hamline University Institutional Review Board. Following my capstone proposal meeting, I completed the Human Subjects Committee application. Once my application was approved I moved forward with the action research. At this time a letter of consent was sent home with each child participant explaining the procedures and purpose of the study. The consent form had to be returned before a child could participate. This document can be found in Appendix E. I also received a letter of approval from my school principal stating the approval of the research taking place in the school building. This document can be found in Appendix F. In addition, student names were changed or covered on all artifacts used for the study to protect their identities.

Chapter Summary

The question I answered through this research study was: How can kindergarten teachers support the Response to Intervention process? I utilized the methodology, sensitivity to the setting and participants, and the various techniques described in chapter three to collect data and develop strategies that support growth in at-risk kindergarten students.

In chapter four, the detailed results of the data will be presented. This will be followed by a discussion of the findings and recommendations based on the information collected during the study.

CHAPTER FOUR

Results

Introduction

In Chapter One I discussed my journey of becoming an educator, including how my experiences have impacted my desire to provide high quality instruction and successful experiences to students from the start of kindergarten. Chapter Two provided research on the RTI model, including the history, structure, student identification process, and data collection methods. This section also focused on developmentally appropriate behaviors and instruction for kindergarten students. Chapter Three described my plan for identifying students needing intervention within my kindergarten classroom. It detailed the process for assessing students, collecting data, monitoring student growth, and providing appropriate intervention. Chapter Three also shared the context and participants involved in the study.

In Chapter Four I will present my findings that support the answer to my question: How can kindergarten teachers support the Response to Intervention process? This section will describe the five methods of data collection used throughout my research, as well as how these supported intervention in the classroom. These methods will include pre and post- assessment, an attitude survey, progress monitoring, observation, and a spelling inventory. Following this, I will explain how I utilized the information collected

to select students and create appropriate interventions. It will also detail student growth to determine the success of the interventions for each at-risk student, which will be discussed in greater depth in Chapter 5.

Data Collection

My purpose in this study was to create a program within my classroom that supports the Response to Intervention (RTI) model, thereby providing interventions early on in children's educational experiences. In turn, my hope is that this will prevent students from falling further behind and needing to be pulled from the classroom for intervention services or special education. In order to properly identify at-risk students and their needs, I needed to collect data about the students I was teaching. The next section will walk through the five techniques I used to learn about my students. From this I was able to gain insight into the best methods to support them within the classroom.

Data collection technique 1: pre and post assessment. In order to create my intervention groups, I needed a baseline from which to assess student knowledge. For this, I used what my district calls a "Ready, Set, Go Assessment". This tool is found in Appendix A. The assessment was administered to all eighteen of my incoming kindergarten students. From these results, I was able to identify the area of focus, as well as the students, that I would be targeting for classroom interventions. The assessment covered many social and academic skills, including color and shape recognition, number identification, and counting; however, after analyzing the results of the assessment it became apparent that letter recognition and sound identification would be the most impactful areas for me to provide intervention for students. Using the pre-assessment I

looked at three areas: uppercase letter name identification, lowercase letter name identification, and upper case sound identification. When the assessment was given, each kindergartener was provided with a sheet of letters, not in alphabetical order, and was to say the name or sound depending on the assessment. From this portion of the Ready, Set, Go Assessment scores, I was able to identify five students that had outlying lower scores in at least one of the three areas. The table below shows the pre-assessment scores of the five students. Each score was out of a possible twenty-six. Students who scored an eight or below in any of the three categories were identified as needing intervention.

	Student A	Student B	Student C	Student D	Student E
Upper Case Names	22	19	14	22	25
Lower Case Names	19	14	5	8	0
Upper Case Sounds	8	0	1	3	3

From the pre assessment data, I was able to more closely identify areas of need for the individual students. Students A and B would first need some intervention in letter names, but their biggest area of need would be letter sound identification, with student B needing more intensive work in this area. Student C was in need of intervention in all three areas, and Students D and E would require intervention mainly in the two areas of lowercase name recognition and uppercase sound identification. These results helped me to plan my first round of interventions, as well as how I would group students, both of which will be discussed later in this chapter. I continued to use the letter identification portions of the Ready Set Go Assessment to progress monitor and provide a post-

assessment score to evaluate student growth. This information will also be shared later in Chapter Four.

Data collection technique 2: student survey. The pre-assessment portion of my research occurred several weeks before school began, which allowed me to have my groups prepared prior to the first day of school. Once school was in session, I began to collect additional data about the kindergarteners that would be involved in my intervention group by administering a survey to learn more about their attitude toward reading, as well as to gain information regarding students' home lives. The survey can be found in Appendix B.

To complete the survey, I worked with students individually. This did not happen until the second week of school in order for all of my kindergarten students to practice classroom routines. While the class had choice time, I pulled each student from my intervention group to my teacher table one at a time. I asked the questions from the survey and the students responded by pointing to a picture, answering an open-ended question, or drawing a picture. Below are the survey results. The letters denote the students from the above table.

Part I:

1. How did you feel about reading books at school?

I don't like it!	It's okay.	I like it.	I love it!
	B		A, C, D, E

2. How do you feel about reading instead of playing?

I don't like it!	It's okay.	I like it.	I love it!
B, D, E		A, C,	

3. How do you feel about reading at home?

I don't like it!	It's okay.	I like it.	I love it!
C, E	B		A, D

4. How do you feel when someone reads a story to you?

I don't like it!	It's okay.	I like it.	I love it!
E (home)	A	B	C, D, E (school)

Part II:

1. What is your favorite book?

Student	Favorite Book
A	The Monsters Among Us
B	Pinkalicious
C	Disney
D	Curious George
E	"the ones I get from the library"

2. Do you have a computer at home?

Yes	No
B, C, D, E	A

3. Do you have an iPad at home?

Yes	No
A, B, C, D, E	

Do you read with an adult at home?

Yes	No
A, B, D, E	C

Part III:

Draw a picture of yourself reading in your favorite place.

Student	Location Drawn
A	bunk bed
B	the public library
C	'my' house
D	grandma and grandpa's house
E	school library

The results of the survey allowed me to gauge individual students' attitudes and interests in reading. Part I of the survey showed me that several of my students already enjoyed reading and had the motivation to work towards becoming a reader, while others would need stronger engagement tactics to aid them in developing a love for reading. Part II and III of the survey demonstrated that the students in my intervention group had all been exposed to books prior to school, as all were able to identify a book or books they have enjoyed reading in the past, as well as a location where they liked to read. I was also able to learn that all of my students were equipped with a form of technology at home, and also appeared to come from environments where there is parent support. This information was valuable in planning out the activities involved for my intervention.

Data collection technique 3: progress monitoring. Once I began working with students, I discovered that due to the students' young age and developmental stage, I needed to be more flexible with both my grouping and my progress monitoring. I found that fifteen-minute intervention sessions were too lengthy for my students at the beginning of kindergarten, so began my interventions daily in five to eight minute increments. Additionally, the lack of independence of the rest of the students in my class

increased the need for shorter intervention blocks. I also found that my groupings needed some flexibility as well. Some interventions lent themselves to whole group instruction, while other times working individually with students, or with two or three students based on need, provided more success. Progress monitoring was another area where flexibility became necessary. The needs of my students led to less time for formal progress monitoring, so I relied more on informal observation, both in and out of intervention groups, to make intervention decisions. Instead of formally monitoring students weekly, I decided to do one formal progress check utilizing components of the Ready, Set, Go Assessment at the end of September, and then the final progress monitor in early November. I considered this final progress monitor to be the post-assessment, which allowed me to measure student progress throughout the research. The midpoint progress monitor allowed me to more formally reevaluate student needs and pinpoint areas where students were continuing to struggle, including specific tendencies of each student, such as consistently flipping certain letters or missing specific sounds. The tables below show specific results for each student for each area of assessment. Students colored graphs, similar to the one shown in Appendix C, to chart their improvement. I found that my students were very excited to see the difference in their pre and post graphs. The x's on the tables are letters and sounds the students were able to identify.

Student A												
Upper Case Names					Lower Case Names				Upper Case Sounds			
	Aug.	Sept.	Nov.			Aug.	Sept.	Nov.		Aug.	Sept.	Nov.
A	x	x	x		a	x	x	x	A	x	x	x
B	x	x	x		b	x		x	B	x	x	x
C	x	x	x		c	x	x	x	C			x
D	x	x	x		d		x	x	D			x
E	x	x	x		e	x	x	x	E			
F	x	x	x		f	x	x	x	F	x	x	x
G	x	x	x		g	x	x	x	G			x
H	x	x	x		h	x	x	x	H			x
I	x	x	x		i	x	x	x	I			
J	x		x		j	x		x	J			
K	x	x	x		k	x	x	x	K		x	x
L	x	x	x		l	x	x	x	L		x	x
M			x		m			x	M			
N			x		n			x	N			x
O	x	x	x		o	x	x	x	O			x
P	x	x	x		p		x	x	P	x	x	x
Q	x	x	x		q		x		Q			x
R	x	x	x		r	x	x	x	R	x	x	x
S	x	x	x		s	x	x	x	S	x	x	x
T	x	x	x		t	x	x	x	T	x	x	x
U	x	x	x		u	x	x	x	U			x
V					v			x	V			x
W		x	x		w		x	x	W			x
X	x	x	x		x	x	x	x	X		x	x
Y	x		x		y	x			Y			
Z	x	x	x		z	x	x	x	Z	x		x
	22	21	25			19	20	24		8	10	21

Student A showed overall consistent growth. During the eight-week intervention he improved his uppercase letter identification by three letters, his lowercase letter identification by five letters, and his letter sound identification by thirteen letters. This particular student struggled with mixing up similar looking letters in identification, such as ‘b’ and ‘d’, and ‘v’ and ‘y’. He also had a more difficult time with identifying vowel sounds.

Student B												
Upper Case Names					Lower Case Names					Upper Case Sounds		
	Aug.	Sept.	Nov.		Aug.	Sept.	Nov.			Aug.	Sept.	Nov.
A	x	x	x	a	x	x	x		A			x
B	x	x	x	b		x	x		B		x	x
C	x	x	x	c	x		x		C			
D	x	x	x	d	x	x	x		D		x	x
E	x	x	x	e	x	x	x		E			
F	x	x	x	f	x	x	x		F		x	x
G				g					G			
H	x	x	x	h			x		H			x
I	x	x	x	i	x	x	x		I			x
J		x	x	j			x		J			
K	x		x	k	x	x	x		K		x	
L	x	x	x	l		x			L		x	x
M				m					M			
N	x			n			x		N			x
O	x	x	x	o	x	x	x		O			x
P		x	x	p		x			P		x	x
Q			x	q			x		Q			x
R	x	x	x	r	x	x	x		R		x	x
S	x	x	x	s	x	x	x		S		x	x
T	x	x	x	t		x	x		T		x	x
U		x	x	u		x	x		U			
V	x	x	x	v	x	x	x		V		x	x
W		x		w					W			
X	x	x	x	x	x	x	x		X			x
Y	x	x	x	y	x	x	x		Y			
Z	x	x	x	z	x	x	x		Z		x	x
	19	21	22		14	18	21			0	11	17

Out of the three target areas, Student B showed the most growth in the area of letter sounds. She attained four new uppercase letters and five new lowercase letters, while she gained seventeen new letter sounds during our eight-week intervention. While I am very pleased in her letter sound growth, this shows me that she may need more focused intervention in letter identification. This student also struggled with mixing up

similar looking letters, such as ‘M’, ‘N’, and ‘W’, and was consistent in mixing these in all three assessment areas. Student B would benefit from targeted practice in those areas.

Student C												
Upper Case Names					Lower Case Names					Upper Case Sounds		
	Aug.	Sept.	Nov.			Aug.	Sept.	Nov.			Aug.	Sept.	Nov.
A	x	x	x		a		x	x		A		x	x
B	x	x	x		b		x	x		B	x	x	x
C		x	x		c		x	x		C			
D					d			x		D			x
E	x	x	x		e		x	x		E			
F	x	x	x		f					F			x
G					g					G			
H			x		h					H			
I	x	x	x		i	x	x	x		I			
J	x		x		j					J			
K		x			k			x		K			x
L	x	x			l					L			
M					m					M			
N			x		n					N			
O	x	x	x		o	x	x	x		O			x
P	x	x	x		p		x	x		P		x	x
Q			x		q					Q			
R	x	x	x		r		x	x		R		x	x
S	x	x	x		s		x	x		S		x	x
T	x		x		t			x		T			x
U			x		u		x			U			
V			x		v			x		V			x
W	x	x	x		w	x	x	x		W			
X	x	x	x		x	x	x	x		X			x
Y			x		y			x		Y			
Z		x	x		z	x		x		Z			x
	14	15	21			5	12	17			1	5	13

Student C maintained lower scores than the other students in my intervention group; however, she also began with lower scores in all three areas. By the end of our intervention period she acquired seven more uppercase letter names, twelve more lowercase letter names, and fourteen letter sounds. While she maintained consistent

growth, she is still in need of intervention in order to be confident in the skills needed to work independently at the level of the majority of students in my class.

Student D												
Upper Case Names					Lower Case Names				Upper Case Sounds			
	Aug.	Sept.	Nov.			Aug.	Sept.	Nov.		Aug.	Sept.	Nov.
A	x	x	x		a		x	x	A			x
B	x	x	x		b				B	x	x	x
C	x	x	x		c		x	x	C		x	x
D	x	x	x		d				D		x	x
E	x	x	x		e		x	x	E			x
F	x	x	x		f		x	x	F		x	x
G	x	x	x		g		x	x	G			
H		x	x		h			x	H			x
I	x	x	x		i		x	x	I			x
J		x	x		j		x	x	J		x	x
K		x	x		k		x	x	K			x
L	x	x	x		l		x	x	L			x
M		x	x		m	x	x	x	M			
N	x	x	x		n				N		x	x
O	x	x	x		o		x	x	O			x
P	x	x	x		p	x		x	P			x
Q	x	x	x		q	x			Q			x
R	x	x	x		r		x	x	R			x
S	x	x	x		s		x	x	S		x	x
T	x	x	x		t		x	x	T	x		x
U	x	x	x		u	x	x	x	U			
V	x	x	x		v		x	x	V	x		x
W	x	x	x		w	x	x	x	W			x
X	x	x	x		x	x	x	x	X			x
Y	x				y	x			Y			
Z	x	x	x		z	x	x	x	Z		x	x
	22	25	25			8	19	21		3	8	22

Student D made some significant improvements in his letter identification abilities. He knew the majority of his uppercase letters upon beginning intervention, making his growth only three letters in this area. However, during our intervention period he grew thirteen letters in lowercase letter identification and nineteen letters in letter

sound identification. Much like Student A, this student began flipping letters that have a similar appearance, such as ‘b’ and ‘d’, ‘p’ and ‘q’, and ‘u’ and ‘n’.

Student E												
Upper Case Names					Lower Case Names				Upper Case Sounds			
	Aug.	Sept.	Nov.			Aug.	Sept.	Nov.		Aug.	Sept.	Nov.
A	x	x	x		a			x	A		x	x
B	x	x	x		b				B	x	x	x
C	x	x	x		c		x	x	C		x	x
D	x	x	x		d		x		D		x	x
E	x	x	x		e		x	x	E			x
F	x	x	x		f		x	x	F		x	x
G	x	x	x		g			x	G		x	x
H	x	x	x		h		x		H		x	x
I	x	x	x		i		x	x	I			x
J	x	x	x		j		x	x	J		x	x
K	x	x	x		k		x	x	K		x	x
L	x	x	x		l		x	x	L		x	x
M	x	x	x		m		x	x	M	x	x	x
N	x	x	x		n		x	x	N		x	x
O	x	x	x		o		x	x	O			x
P	x	x	x		p		x	x	P		x	x
Q	x	x	x		q		x	x	Q			x
R	x	x	x		r		x	x	R		x	x
S		x	x		s		x	x	S	x	x	x
T	x	x	x		t		x	x	T		x	x
U	x		x		u			x	U			x
V	x	x	x		v		x	x	V		x	x
W	x		x		w			x	W		x	
X	x	x	x		x		x	x	X		x	
Y	x		x		y		x	x	Y			
Z	x	x	x		z		x	x	Z		x	x
	25	23	26			0	21	23		3	20	23

Student E’s quick growth showed that his initial assessment may not have been fully accurate; however, I feel that intervention was still a good choice to build his confidence in letter name and sound identification. After working with this student it became clear that while he appeared to learn twenty-one lowercase letter names and

seventeen letter sounds by the first progress monitoring, in reality, the initial assessment had outside factors that prevented the student from demonstrating his abilities accurately. For one, this was the child's first time meeting me, so there may have been some anxiety involved. After knowing this student, I also have the background knowledge that he has a more difficult time staying on task, and when he is not in the mood to perform a task will tell you that he does not know how. These factors skewed the results.

The results from the progress monitoring played a significant role in evaluating student progress and aided my decisions as to what interventions would be used for individual students. In the tables below I consolidated all of the students' scores to show their growth in comparison to one another. At the end of the eight-week period, this helped me to decide which students should move to the next level of intervention and which students should be exited and monitored to ensure continuing growth.

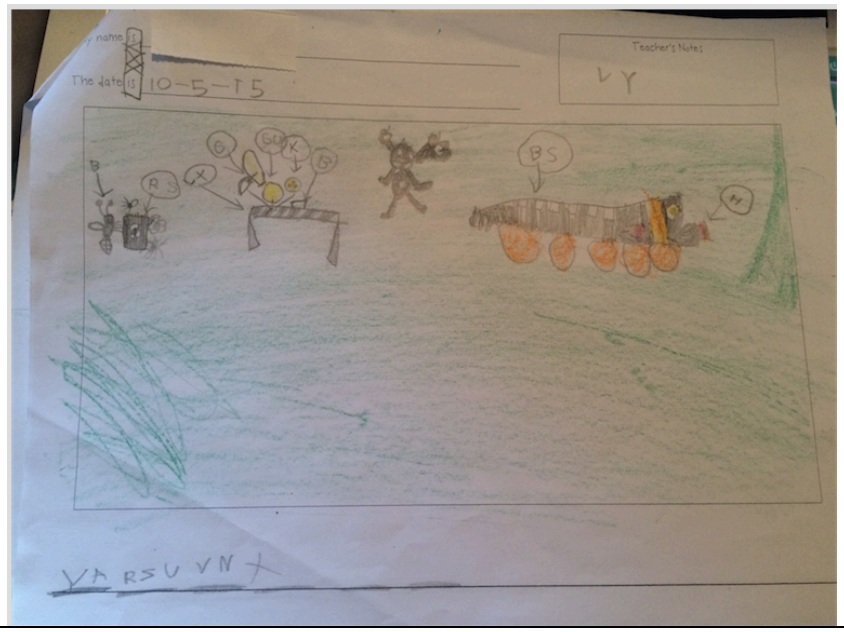
Identifies Upper Case Letter Names					
	Student A	Student B	Student C	Student D	Student E
August	22	19	14	22	25
September	21	21	15	25	23
November	25	22	21	25	26

Identifies Lower Case Letter Names					
	Student A	Student B	Student C	Student D	Student E
August	19	14	5	8	0
September	20	18	12	19	21
November	24	21	17	21	23

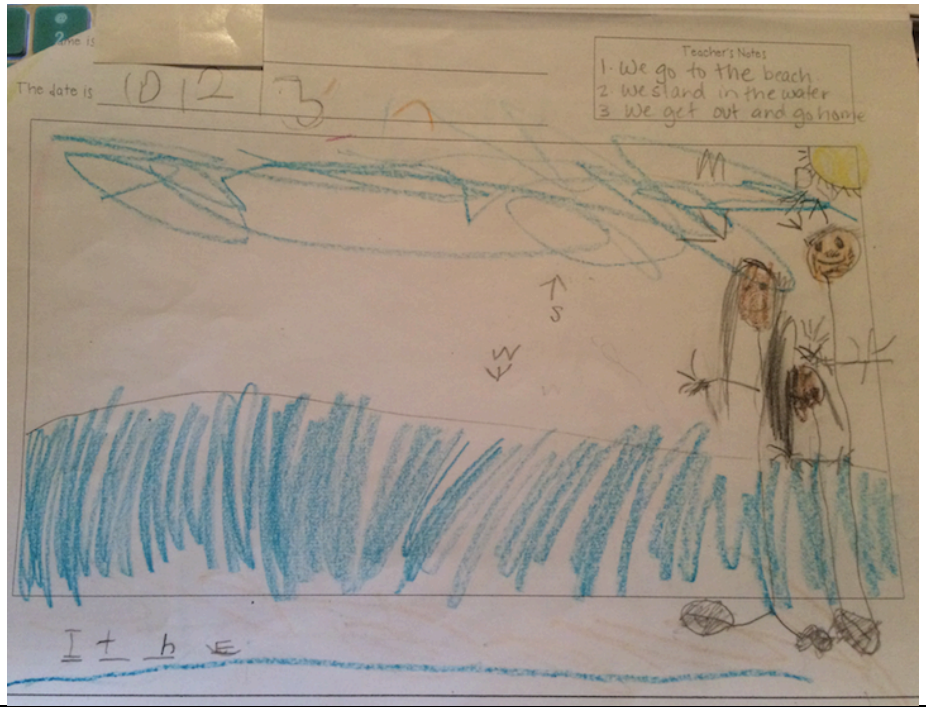
Identifies Upper Case Letter Sounds					
	Student A	Student B	Student C	Student D	Student E
August	8	0	1	3	3
September	10	11	5	8	20
November	21	17	13	22	23

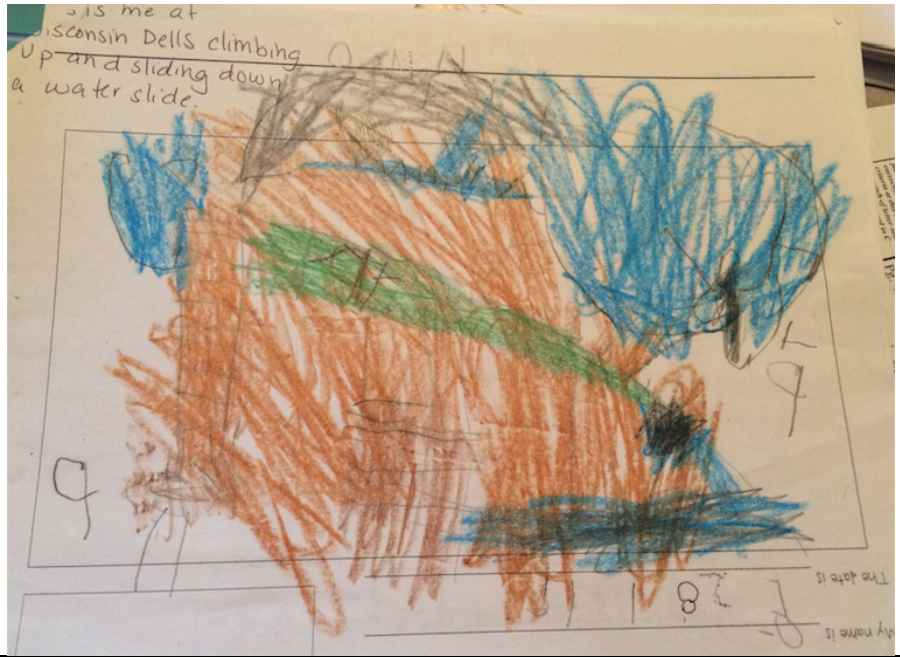
I made the exit criteria a score of 20 or above. Any student who scored below a 20 out of 26 in any of the three assessment areas needed further intervention and would be brought back to our school's learning supports team for a conversation about the next step of the plan.

Data collection technique 4: observation. Observation played a large role in formatively assessing students' abilities during the time period of these interventions. As I mentioned earlier in Chapter Four, the timing of my intervention occurred early in the kindergarten year. This meant that students were still busy learning school routines, and also building stamina to focus on lessons or work. Due to these factors, my interventions had to be quick, not only for the students in the intervention group, but also for my other students who could only work or play independently for short periods of time. The time I met with my intervention groups was brief and valuable, so I wanted to make sure it was spent on intervention activities as much as possible, rather than assessing. I decided to utilize observations of activities already taking place and conferred with students during lessons to monitor growth more frequently than formal assessments. These observations gave me valuable feedback as to what my students were applying from my additional instruction and what areas I needed to continue to focus upon. Writer's Workshop and Reader's Workshop were the two academic times that I found to be most useful for observation and conferring. Below are examples of student work and notes I took that aided in my ability to provide appropriate interventions.

Student A
Writer's Workshop
Sample: 
Notes written: • Writing beginning sounds to label items in story • Beginning to add sentences (new skill) • Experimenting with strings of letters in sentences • Work on matching sounds with words/pictures • Has beginning sound for labeling; work on labeling ending sound also
Reader's Workshop
Notes: Level: AA • Work on tracking; using finger but saying words and catching up to last word on page • Not using first letter to double check (saying 'chicken' for 'bird') • Difficulty with two letter words (up); continue working on sounds; practice putting two together in small group • Using picture to tell story

Student B
Writer's Workshop
Sample: 
Notes written: • Beginning to label; mostly names • Work on labeling objects to work on sound/letter recognition • Work on creating sentences: count how many words you want to say and write the lines then focus on the beginning letter for each word
Reader's Workshop
Notes: Level: AA • Practice using first letter to check words; saying 'eagle' for 'bird' • Not picking up on pattern: 'The _____ is up in the sky' • Using picture to tell the story • Work on tracking; words read not matching finger; not confident enough in letter sounds yet

Student C
Writer's Workshop
Sample: 
Notes written: • Writing beginning sounds to label items in story (s-sky, w-water); still needs some prompting to do this • Experimenting with popcorn words • Has beginning sound for labeling; work on labeling ending sound also • Work on beginning sounds in sentences
Reader's Workshop
Notes: Level: AA • Lots of miscues when reading, even after teacher demonstration • Work on beginning sound checking to • Points to words when prompted

Student D
Writer's Workshop
Sample: 
Notes written: • Work on paper orientation • Beginning to label beginning sound independently • Will try sentences when prompted; mostly popcorn words • Work on sentences with beginning sounds • Continue to work on labeling; start adding ending sound
Reader's Workshop
Notes: • Uses finger to track left to right • Using picture to tell story • Not using beginning sound to double check ('vulture' for 'bird') • Trouble putting two sounds together ('up')

Student E
Writer's Workshop
Sample: 
Notes written: • Writing labels to identify items in story; beginning sound and some middle • Work on labeling ending sounds • Beginning to add sentences (new skill) • Needed some prompting and guidance with sentences; could get beginning and end sounds when reminded and used alphabet chart • Continue to work on independence with sentences; beginning adding middle sounds
Reader's Workshop
Notes: Level: AA • Nice job tracking (missing the word 'up', but knew a word should be there so filled it in) • Checking pictures to match words • Checking first letter to match correct picture • Continue work on sounds to build confidence to blend sounds together

Data collection technique 5: spelling inventory. The Spelling Inventory provided by *Words Their Way* (2004), can be a valuable tool in identifying students' stages of word

knowledge. I did not give this assessment until the end of October. The beginning of the kindergarten year was spent learning about letters and sounds, so in order to fairly and accurately administer an assessment about word knowledge, I needed to give my students time to learn about letters and words. This assessment was given to the entire class; however, I pulled the results of my intervention students to provide another piece of evidence to gain insight into their current word working abilities. This gave me extra data to ensure that I was meeting student needs in my intervention groups. When giving the spelling inventory, I only gave the first thirteen words of the assessment. The inventory confirmed that all five students in my intervention group were in the emergent stages of spelling, needing work on beginning consonants and final consonants of words. This knowledge helped me to provide appropriate picture sorts and activities.

Collecting data and tracking student progress was an important part of my research. It enabled me to identify students with the highest needs and provide them with interventions that targeted their specific area of risk to support the RTI process within the classroom. The next section will give examples of interventions I used throughout my research, as well as describe how these interventions were implemented.

Intervention Procedures

As I mentioned earlier in this chapter, my intervention time was shorter than I had initially planned for due to the needs of the students in my class. The interventions in my classroom took place during our class choice time. This allowed my other students to play independently while I worked with the students in the intervention group. Prior to beginning work with my intervention group, I introduced the ‘Busy Bee Crown’ to my

class. When I wore this crown in my classroom, it was a signal that I was 'busy' working with another student and could not be interrupted unless it was an emergency. I would practice wearing this crown several times throughout the day while we were learning classroom routines so that when I did begin my intervention groups, I was able to work with students uninterrupted on most days, as long as I limited the sessions to no more than eight to ten minutes. In the following tables I will outline the interventions and procedures I used to complete my research.

Intervention 1: Say the name, Say the sound, Find the picture
Time: 5-8 minutes per day
Duration: 2 weeks (10 school days)
Number of groups: 1 (all students together)
Activity: Students were presented with a card that showed an upper and lower case letter. As a group we traced the letter in the air while saying the name. Then we whispered the sound and said the sound out loud. The bottom of the card had three pictures from which students had to identify which began with the same sound of the letter on the card. Five cards were shown each day.

Intervention 2: Trace it, Say it, Say the object
Time: 5-8 minutes per day
Duration: 2 weeks (approximately 10 school days)
Number of groups: 5 (done individually)
Activity: Students were given a stack of 26 alphabet flashcards. Each flashcard had an uppercase letter, a lowercase letter, and a picture that began with the letter. All vowels used the short sound. Students would go through the stack and trace the uppercase letter while saying the letter name, trace the lower case letter while saying the name, and then say the object. (Example: "A, a, apple") This was done for all letters of the alphabet daily.

Intervention 3: Picture Sorting
Time: 5-8 minutes per day
Duration: 2 weeks (approximately 10 school days)
Number of groups: 2 (grouped with like needs: A, E/B, C, D)
Activity: Students were provided with letter headings and a stack of pictures. Each student was to sort the pictures by their beginning sounds and place them under the correct letter heading. Three letters were focused on each day, depending on student need. Students A and E also worked on sorting pictures by their ending sound during the second week.

Intervention 4:
Time: 5-8 minutes per day
Duration: 2 weeks (10 school days)
Number of groups: 2 (grouped with like needs: A, E/B, C, D)
Activities: The last intervention round was more greatly differentiated. My group with Students A and E began working on CVC word formation using letter sounds. With this group I used magnet letters, stamps, and dry erase markers as tools for different activities. Based on a provided picture they would fill in either the beginning or the end sound. (example: If the picture was a mop, students may have a sheet that reads __op and have to find the 'm' stamp to fill it in.) My group with Students B, C, and D continued to work on letter identification and beginning sounds. For this, I had students do 'I Spy' activities, where a page would be filled with different upper and lower case letters and they had to find and circle all of the given letters. (Example: What sound does a B make? Find all the B's.) We also went on letter hunts in books and magazines. In addition, I printed pages that had different pictures on them and a specific letter at the top. Students had to color all of the items that began with that letter. We focused on letters based on greatest need through data collection.

These interventions were tailored to students' intervention goals, defined using the data collected.

Chapter Summary

In Chapter Four, data collection techniques were reviewed. This gave insight to the process of selecting students for intervention groups and monitoring progress to assess student needs. This chapter provided the description of the implementation and the

outcomes of the plan that was presented in Chapter Three. In addition, Chapter Four shared further detail of the interventions used to target the specific needs of the students in my classroom.

The data collected and shared in this chapter highly correlated with the literature reviewed in Chapter Two. The RTI model demonstrates that "to generate the best student outcomes, data should drive implementation and intervention (Kovaleski & Pedersen, 2008; Stringfield & Wayman, 2006, as cited in Abbott, 2012, p. 38). This was evident as I collected information and used it to guide my instruction and decision-making. It became clear that "a well-articulated assessment system is critical in providing teachers with reliable data that are easily interpreted and used to make instructional decisions" (Crawford, 2014, p. 230). As I worked with my intervention group, I began to understand that "data about a student's responsiveness to intervention becomes the driving force" and provides important information to guide instruction (Grimes, p. 4, as cited in Fuchs & Fuchs, 2006, p. 95; VanDerHeyden, 2014, p. 236). Using the student data that I had collected, I was able to concentrate on academic areas that individual students needed most. As educators, we should focus on targeting student needs to create a more valuable and focused learning environment.

In Chapter Five I will reflect upon my research question: How can kindergarten teachers support the Response to Intervention process? This final chapter will provide the opportunity for me to evaluate the process of my research, share the implications, and define major learnings from the study.

CHAPTER FIVE

Conclusions

Introduction

Throughout this capstone I investigated the question: How can kindergarten teachers support the Response to Intervention process? To accomplish the task of answering this question, I reviewed prominent literature, shared in Chapter 2, designed a plan of implementation, described in Chapter 3, and shared the results of my research in Chapter 4. In Chapter 5 I will reflect upon the learnings and outcomes of the process. I will begin by reviewing the literature and relating the information from Chapter 2 to the procedures and results from the study I implemented in my classroom. This will allow connections to be made about the most important components of the research. I will then discuss my major learnings as the result of completing and analyzing the outcomes of the study. As a researcher it is important to reflect upon the journey and identify the areas that will be most prominent to future applications. Following my learnings, I will share both the limitations and implications of the research. It is necessary to acknowledge that research often comes with constraints. It is important to identify these in order to prevent them in the future if possible. It is also crucial to share why a research study matters, including the findings that will be valuable to other educators. I will conclude the chapter

by explaining how the research and process have impacted me, and additionally how I plan to use this information in the future.

Revisiting the Literature

Reflecting back on the literature that aided in the development of my action research, I am able to see the many connections between the studies and information experts shared in Chapter Two and the occurrences that took place in my classroom. Much of the literature supported the use of the RTI model, along with implementation of the process at an early age. From this, several themes surface as being the most prominent in supporting the RTI model in the kindergarten classroom: the necessity of a well structured assessment model, the importance of student driven learning, and the value of collaboration.

My literature review discussed the components used to structure the RTI model. This included the three tiers, students served in each tier, how students are supported differently in each tier, and the process of selecting students for each tier. Prior to my research in this area, I felt that I knew about the RTI model and processes; however, I discovered that there is much more to know. I found this information extremely beneficial when conducting my research. It made me realize that all teachers should be educated on the specific RTI process used within their school to ensure proper service is provided to students. As stated in chapter two, the purpose of Response to Intervention is to make "efficient use of school resources while maximizing students' opportunities for success" (Fuchs, Fuchs, & Compton, 2012, p. 263). Without proper knowledge, teachers are not able to utilize RTI to its fullest benefit. This includes knowing the proper

assessments for screening and progress monitoring within the school, as each district or school can differ some in their requirements. Crawford (2014) states that, "without a valid assessment system, the model cannot sustain itself", as assessment is a critical component of the RTI process (p. 230). The realization of the importance of knowing the structure and procedures of the RTI model, including how to assess and progress monitor students, connects to my next main theme, student driven learning.

The instruction provided in interventions should be student driven. The ability to provide this kind of instruction comes from appropriate assessing and progress monitoring. Crawford (2014) sates that "a well-articulated assessment system is critical in providing teachers with reliable data that are easily interpreted and used to make instructional decisions" (p. 230) This assists teachers in providing meaningful instruction, as well as indicates if a student needs to be moved to another tier of the RTI model. As I worked with my intervention group, I began to understand that "data about a student's responsiveness to intervention becomes the driving force" and provides important information to guide instruction (Grimes, p. 4, as cited in Fuchs & Fuchs, 2006, p. 95; VanDerHeyden, 2014, p. 236). Using the student data that I had collected, I was able to concentrate on academic areas that individual students needed most. As educators, we should focus on targeting student needs to create a more valuable and focused learning environment.

This brings me to the final theme, collaboration. In Chapter Two I also discussed the need for educators to work together in order to establish an effective RTI approach. Richards et al. (2007) recommend collaboration among teachers, administrators, and

support staff to develop a model that is efficient and responds to student needs (p. 59). While in the midst of my research, I found collaboration to be a crucial component. Both the school's learning supports team and my kindergarten teaching team played a role in my success in implementing in-class interventions. Once a month our learning supports team, made up of special education teachers, general education teachers, intervention specialists, the school psychologist, and our principal met to discuss students that were on the 'watch list' for needing additional services. This played a valuable role in supporting me in my abilities to further assist my students in the classroom, as well as kept me accountable for tracking my students' progress. These meetings provided me with a team that could answer questions as to next steps and help problem solve. In addition, my kindergarten team discussed students regularly in our professional learning communities, which enabled us to share ideas and activities that had worked for students with similar needs. Not only was collaboration valuable for support and sharing, it also proved necessary that everyone be clear and consistent on the school's specific RTI procedures. This ensured that students could be moved in and out of tiers fluidly as needed, allowing our staff to provide the best services possible to all students.

This reflection on literature leads to the next section of my conclusion where I will discus my most valuable learnings from the study.

Major Learnings

Looking back on the process of researching, creating a plan, and implementing the work in my classroom, I recall many areas of learning in the area of RTI. In addition,

this was my first year teaching kindergarten, thus this created another area of vast learning for me as I took this capstone journey.

Early intervention. The first, and most prominent major learning in my mind is the importance of early intervention. Menzies and Lane (2011) state that the early years of education lay the academic foundation for which later skills are built upon (p. 182). This crucial year of kindergarten is a time where children learn to be students. This first year of school should be filled with positive experiences in order to motivate students to be learners. A struggling student will feel frustration rather than enthusiasm, and intervening early prevents students from going through several years of frustration. In fact, often times with early intervention, students do catch up to their peers, as I witnessed through my research. Although not all the students in my group will be exited from intervention, I am more aware of their needs and able to provide the supports for successful learning, which will build students' self-efficacy and increase student motivation. Prevention models, such as RTI are necessary in kindergarten.

Consistency. My next major learning was the importance of consistency. In order to learn if early intervention would help students, I needed to make sure that I was providing interventions daily and following the proper procedures. This would have the most impact on student learning. The consistency also provided students with the knowledge of our daily routine and structure. I pulled students at relatively the same time, for the same amount of time, daily, taking away any anxiety or wondering that may impact the interventions. In addition, I also found that repetition of skills was very important, especially because the students were so young, and some had very little exposure to letter

identification practice of any sort. Our intervention blocks were short and quick due to the briefer attention span of five and six year olds. In order to ensure this time was spent retaining the skills rather than on learning new activities, I utilized repetition and used the same focused activities for two weeks, rather than switching the activity daily. This allowed students to know the expectations and work more closely on gaining letter knowledge.

Flexibility. While this may sound contradictory to my prior discussion about consistency, I found that while structure and procedures are crucial in the realm of the RTI process, I also discovered that in order to meet my students' needs, I needed to be flexible with my plan. As I stated earlier, this was also my first year of teaching kindergarten. Going into the year I did not realize what I wide span of knowledge and abilities my kindergarten class would present. With that, this affected the plan I had for my intervention group. I ended up needing to take some time to evaluate my students' needs, abilities, and developmentally appropriate practices for kindergarten students. After some observation, I realized that my students needed my attention and assistance often, and were not ready this close to the start of the year to work or play independently for more than five minutes. As stated in Chapter 2, Kohler et al. (2012) assert that child-centered practices that honor developmentally appropriate practices increased student motivation in that students had higher expectations for their success in school, demonstrated more pride in their successes, and were less anxious about school (p. 67). In order to be mindful of what was best for my group of students, I decided to adjust my intervention blocks. I pushed back the start time to give students more time to adjust to

the routines and expectations, and also shortened the length of time I spent with my intervention students for the benefit of both the students in my group, as well as for the rest of the students in the class. In addition, I have learned that teaching in general, and especially teaching kindergarten, requires flexibility. The unexpected can occur in the middle of an intervention lesson, and while trying to be as consistent as possible, sometimes changes need to be made quickly due to classroom occurrences.

The next section will explain some of the limitations to the research and results of this capstone.

Limitations

While applications of best practices were taken into account in order to follow the procedures laid out in Chapter Three, when working with human subjects, there is risk of some amount of error. Below I will share three areas that may have limited the results of this study.

Accuracy of initial assessment. The initial assessment for my study was given prior to the start of school. The kindergarteners from my class came to school in the early weeks of August in order to meet me and complete the fifteen-minute Ready, Set, Go Assessment. For many students this was the first time to meet me, and for several it was the first time at our school. The experience can be exciting or overwhelming for some students, which can cause out of character behavior that may have skewed assessment results. During the time of our conference, the children's parents stayed in the hall to fill out paperwork to help us get to know the students better, while the children completed the assessment in the cafeteria with me. For some children, leaving their adult was

another factor that caused some anxiety, which could have also caused lack of focus on the tasks asked in the assessment. In addition, other kindergarten teachers were completing their assessments in the cafeteria simultaneously, which was distracting for some students. These external factors and feelings may have resulted in students not accurately demonstrating their skill set during our assessment. When possible, a double screening with a second assessment can eliminate the questions that external factors cause and provide more accurate data.

Progress monitoring. Initially when creating my plan for this study, my goal was to formally progress monitor students weekly in order to collect data points and tailor instruction. It is recommended that progress monitoring be used to collect data at least once biweekly (Ysseldyke et al., 2010, p. 56). Due to several classroom limitations, such as student abilities, the study taking place early in the year, and time restraints, I found myself needing to adjust to formally progress monitoring with students monthly, while doing more formative assessing through observation and reflection on student work in order to make instructional decisions.

Kindergarteners in early September. The final limitation I discovered while researching was the challenge of performing this study early in the kindergarten year. As mentioned previously, the beginning of kindergarten is an adjustment time for students to learn about the school, practice classroom routines, and learn to work independently. It is also a time of the year where activities must happen very quickly and students move from one task to the next in short spurts, as developmentally, it is not appropriate for students this young to be attending for long lengths of time. This challenged the study because I

found intervention must be shortened for both the benefit of my intervention students and the rest of the students in my class. In addition, because students are new to the school, I had no previous data on the children; therefore, at times it was challenging to differentiate an area where my students were struggling, or if they were simply learning a new skill and adjusting to the routine. In retrospect, waiting another month for students to become comfortable with classroom routines would have given my students the time to be more independent and confident, and given me the ability to do more observation on students' strengths and needs before beginning intervention.

While there were several areas that limited the research findings, I found many aspects of the study very valuable and was able to see growth in all students participating in the study. In the next section I will share how my results effect education.

Implications for Education

While learning to more thoroughly understand the RTI model and its processes in and out of the classroom, I realize that there is not one specific format that will help all students. The RTI model is a program that is not only fluid in its accessibility to students, but also flexible in what it can offer to students in order to meet student needs. Despite that the interventions and implementations may be diverse in different settings and for different students, there are several implications I found through my study that remain the same regardless of students served or location.

The first implication is the need for thorough and consistent data collection in all classrooms. Student needs should drive the classroom instruction. This applies to all students, not just those in Tier 2 or 3 interventions. The RTI model demonstrates that "to

generate the best student outcomes, data should drive implementation and intervention (Kovaleski & Pedersen, 2008; Stringfield & Wayman, 2006, as cited in Abbott, 2012, p. 38). This means student data needs to be collected regularly and recorded in a way that can be tracked and analyzed to evaluate student progress. Simply collecting the data, however, is not enough. The data gathered must also be studied in order to learn about individual students. In order to truly meet the needs of students in classrooms, educators need to tailor instruction using the findings from regular progress monitoring and documentation.

The next implication is the importance of early intervention programs. The early years of education lay the foundation for student success later in school. My research proved that using a prevention model, such as RTI, is necessary early on in children's academic careers, rather than waiting until they have shown they are struggling. Students with the additional supports from the beginning began to be and feel successful in school, resulting in greater self-confidence, less frustration, and an increase in the desire to learn.

The final implication is that teachers can support the RTI process within their classroom. Prior to my research, I did not understand what a crucial role the classroom plays in the successful implementation of the RTI model. I viewed much of the intervention as taking place outside of the classroom, when really much of it can happen directly in the classroom. This provides more data to build upon, and allows more students to be served more quickly. All classrooms should be screening students throughout the year and progress monitoring those that have been identified. The interventions and data collections from the classroom participation in RTI can have great

impacts on student success. Teachers are with their students regularly, and this close contact allows for quick and fluid interventions and identification.

The implications of this research suggest that an intervention model, such as RTI should be implemented in all classrooms. This brings me to the next topic, providing recommendations and discussing where we go from here.

Where Do We Go From Here?

The outcome of my research has been very impactful on my abilities and confidence in providing valuable intervention within my own classroom. I have been able to see the impact on my students and feel that I have the tools to carry out these procedures regularly.

My first plan is to continue with my current intervention group. While most of my students were ready to exit and be successful without my intervention, two of my students were not responding as well to the interventions. This shows me that I have more work to do, and I will bring the data for these children to our learning supports team so that we can decide if they are ready to be moved to Tier 3 or if another targeted classroom intervention may support their needs.

In addition, I will continue to regularly screen the students in my classroom to ensure that all students' needs are being met. This includes progress monitor check-ins with students who have been released from my intervention group to make sure they are maintaining skills and not in need of additional support.

Earlier in Chapter 5, I discussed the importance of collaboration in the RTI model. As I move forward with RTI, I will continue to work with colleagues to gain and

share ideas for students. Additionally, I would like to share the knowledge I have gained from this experience to encourage other educators to implement a well structured intervention system in their classroom. I hope to be a support for those who are learning, and provide assistance in setting up data collection procedures and helping others understand the inner workings of the model.

A school wide intervention block is another area where this research has pushed me to advocate. Currently our school's interventionists pull students randomly throughout the day, causing students to miss out on certain classroom activities and sometimes correlating a negative connotation with these pull out times. In addition, in-class interventions can also be challenging to fit in throughout the day. This can make them more difficult for teachers to consistently and reliably implement. Due to this, in the future I would recommend that each grade level have a set time that interventionists meet with students in Tier 3 interventions. During this time, classroom intervention would also take place, in addition to enrichment opportunities for other students. I have discussed this with our principal, and we currently have a group of advocates that are working to put together a plan that may provide everyone with appropriate intervention times to ensure consistency and positive experiences.

The process and outcomes of this research has opened my eyes to the possibilities of RTI implementation, and excites me with what we are able to offer to students when we use data to drive the instruction, regardless of where students may be academically.

Chapter Summary

I began this capstone journey with the question: How can kindergarten teachers support the Response to Intervention process? Through the process of answering this question, I grew vastly in my knowledge of the RTI model as a whole. In this chapter I reflected upon the literature used to create my implementation methods, described major learnings from the experience, discussed the limitations as well as the implications of the research, and described how my findings will influence my next steps as an educator.

Through this experience, I have learned much about the RTI model and what makes a successful intervention program. I have developed confidence in my ability to collect and organize valuable student data, and more importantly have developed a greater strength in my abilities to use this data to respond to student needs by applying it to my instruction. I have been able to prove that early intervention is best for students, and I feel proud of what my students and I have accomplished together through this journey. Throughout this process, I grew not only in my abilities to implement RTI best practices, but also in my confidence in applying action research to my classroom. The journey has impacted me as a learner, and I will be a better educator because of it.

APPENDIX A

Pre and Post Assessment

Student Name _____ Gender____
DOB_____

Incoming Kindergarten Assessment*

Ready, Set, Go Conference
(August 2014)

Colors: _____/10 points

red	green	blue	yellow	orange	white	black	purple	gray	brown

Shapes: _____/8 points

oval	square	circle	rhombus/diamond	triangle	rectangle	hexagon	trapezoid

Counting (By 1s): _____

Number Identification (Part One): _____/11 points

4	1	7	9	0	5	6	3	2	10	8

Number Identification (Part Two): _____/10 points

13	17	16	11	14	20	15	18	12	19

Uppercase Letter Names _____/26 points

B	A	M	R	S	T	G	E	N	P

C	H	I	F	D	O	L	K	J	W

U	Y	Z	V	Q	X

Lowercase Letter Names _____/26 points

b	a	m	r	s	t	g	e	n	p

c	h	i	f	d	o	l	k	j	w

u	y	z	v	q	x

Uppercase Letter Sounds _____/26 points

(Note: Student should produce the short vowel sounds.)

B	A	M	R	S	T	G	E	N	P

C	H	I	F	D	O	L	K	J	W

U	Y	Z	V	Q	X

Rhyming: _____/6 points

We are going to play a rhyming game. I am going to say a word and you will tell me a word that rhymes with it. For example, if I said the word, "play" a word that rhymes with "play" is "hay." Or you could say "day", "may", "way", or "say." Let's try it!

dad	hop	sun	pig	red	funny

Blending Sounds: _____/5 points

We are going to play another game. I am going to say a word, but when I say it I am going to sound like a robot. Your job is to figure out what word I am saying. For example, if I said "d-o-g" you would tell me that I'm trying to say the word "dog." Let's try it!

/h/ /a/ /t/	/r/ /e/ /d/	/s/ /i/ /t/	/h/ /o/ /t/	/sh/ /u/ /t/

Reading CVC Words: _____/5 points (OPTIONAL)

I noticed that you know a lot of the sounds that the letters in the alphabet make! I am wondering if you can read some words. Watch how I do it. Here is a word… I am going to sound out each letter in the word to see if I figure out what the word is. "/c/, /a/, /t/ cat!" Now it's your turn!

fat	hop	rip	wet	fun

Reading Strategies: _____/6 points

Directionality (Reads from left to right)		Uses the pictures to figure out the words	
Points to each word (One-to-one matching)		Reads all or almost all the words correctly	
Follows the pattern		Explains what the books is mostly about	

Writes Name on Whiteboard: _____yes _____somewhat _____no

Picture Taken: _____yes

Student Behaviors:

Student was engaged in the assessment.	
Student sat still during the assessment.	
Student stayed on task during the assessment	

Student needed more encouragement to participate in the assessment.	
Student moved around a lot during the assessment.	
Student changed the subject frequently and needed to have directions repeated during the assessment.	

Student seemed outgoing/talkative/assertive.	
Student seemed shy/quiet/timid.	

Additional Observations/Notes:

_____

_____

_____

_____

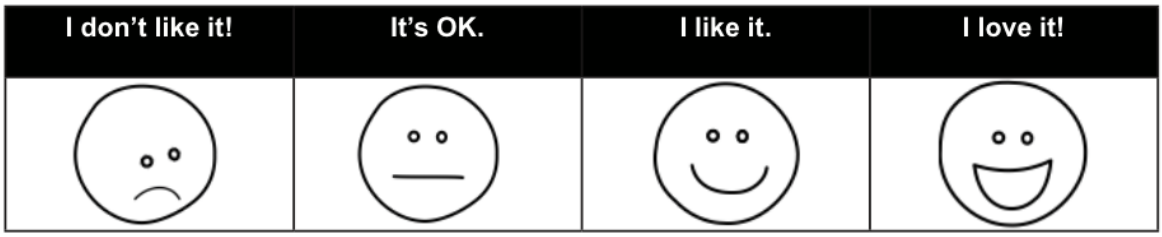
*Thank you to Julie Haddad for permission to use this form.

APPENDIX B

Student Survey

Attitude Survey*

Part I Directions: Teacher will read the questions and student will point to the face that matches his/her feelings.



1. How do you feel about reading books at school?
2. How do you feel about reading instead of playing?
3. How do you feel about reading at home?
4. How do you feel when someone reads a story to you?

Part II Directions: Teacher asks questions and records student response.

1. What is your favorite book?
2. Do you have a computer at home?
3. Do you have an iPad at home?
4. Do you read with an adult at home?

Part III Directions: Give student a piece of paper. Tell him/her , "Draw a picture of yourself reading in your favorite place.

*Survey modified from Storia Reading Attitude Survey by Scholastic.

APPENDIX C

Student Graph

*Note: May be modified depending on goal/targeted skill.

20						
19						
18						
17						
16						
15						
14						
13						
12						
11						
10						
9						
8						
7						
6						
5						
4						
3						
2						
1						
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6

APPENDIX D

Spelling Inventory

Feature Guide for Primary Spelling Inventory

Name_____ Grade ___ key: entering ☐ fall ☐ winter ☐ spring ☐

STAGES	emerg	Letter Name-Alphabetic			Within Word Pattern			Syllables & Affixes		
	late	early	mid	late	early	middle	late	early		
	Beginning Consonant	Final Consonant	Short Vowels	Consonant Digraphs	Consonant Blends	Long Vowel Patterns	Other Vowel Patterns	Inflected Endings	Feature Points	Correct Spelling
1. fan	f	n	a							
2. pet	p	t	e							
3. dig	d	g	i							
4. rob	r	b	o							
5. hope	h	p				o-e				
6. wait	w	t				ai				
7. gum	g	m	u							
8. sled			e		sl					
9. stick			i		st					
10. shine				sh		i-e				
11. dream					dr	ea				
12. blade					bl	a-e				
13. coach				ch		oa				
14. fright					fr	igh				
15. chewed				ch			ew	ed		
16. crawl					cr		aw			
17. wishes				sh				es		
18. thorn				th			or			
19. shouted				sh			ou	ed		
20. spoil					sp		oi			
21. growl							ow			
22. third				th			ir			
23. camped								ed		
24. tries								ies		
25. clapping								pping		
26. riding								ding		
totals										

*Assessment from *Words Their Way*.

APPENDIX E

Letter of Consent

September 4, 2015

Dear Parent or Guardian,

Our kindergarten year is off to a great start, and I am enjoying watching your children explore and grow! I wanted to inform you about an exciting opportunity that will be taking place in our class during the first several months of the school year. I am currently a graduate student working on a master's degree in literacy education at Hamline University, St. Paul, Minnesota. As part of my graduate work, I plan to conduct research in my classroom from September 14 – November 6, 2015. The purpose of this letter is to ask your permission for your child to take part in my research.

Throughout the eight-week research time frame, I will be studying how different activities promote academic growth and encourage students' self-confidence. To do this I will be working with small groups of 3 to 5 students for 5 to 10 minutes daily in order to target specific early literacy and math skills. Each child will receive a pre and posttest, given verbally by me, to determine academic growth during the study. They will also receive progress checks throughout the eight-week period, from which I will adjust the instruction to fit your child's needs.

There is little to no risk for your child to participate. All results will be confidential and anonymous. I will not record information about individual students, such as their names, nor report identifying information or characteristics in the capstone. Participation is voluntary and you may decide at any time and without negative consequences that information about your child will not be included in the capstone.

I have received approval for my study from the School of Education at Hamline University and from the principal of . The capstone will be catalogued in Hamline's Bush Library Digital Commons, a searchable electronic repository. My results might also be included in an article for publication in a professional journal or in a report at a professional conference. In all cases, your child's identity and participation in this study will be confidential.

If you agree that your child may participate, keep this page. Fill out the duplicate agreement to participate and return it to me at school by September11, 2015. If you have any questions, please email or call me at school. Thank you for your support!

Sincerely,

Megan Bauer

Telephone:
Email:

Informed Consent to Participate in Research
Keep this full page for your records.

I have received your letter about the study you plan to conduct in which you will be observing students' behavior in groups. I understand there is little to no risk involved for my child, that his/her confidentiality will be protected, and that I may withdraw or my child may withdraw from the project at any time.

_____ _____
Parent/Guardian Signature Date

Participant copy

Informed Consent to Participate in Research
Return this portion to Megan Bauer.

I have received your letter about the study you plan to conduct in which you will be observing students' behavior in groups. I understand there is little to no risk involved for my child, that his/her confidentiality will be protected, and that I may withdraw or my child may withdraw from the project at any time.

_____ _____
Parent/Guardian Signature Date

Researcher copy

APPENDIX F

School Approval Letter

June 2015

To Whom it May Concern:

I am very happy to write a letter of support for Megan Bauer. Megan has been an extremely effective elementary teacher at since 2011. I have had the opportunity to watch Megan interact with our students, parents and staff during my time as building principal and believe that she possesses all the necessary skills needed in being an effective teacher and effective learner.

I am in approval of her desire to pursue her Capstone project on Response to Intervention for kindergarten aged children. Megan excels as a teacher and will certainly excel in this project as well.

Please feel free to call me at if I can be of any assistance.

Sincerely,

*Names of school, district, and principal covered to protect student identity.

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